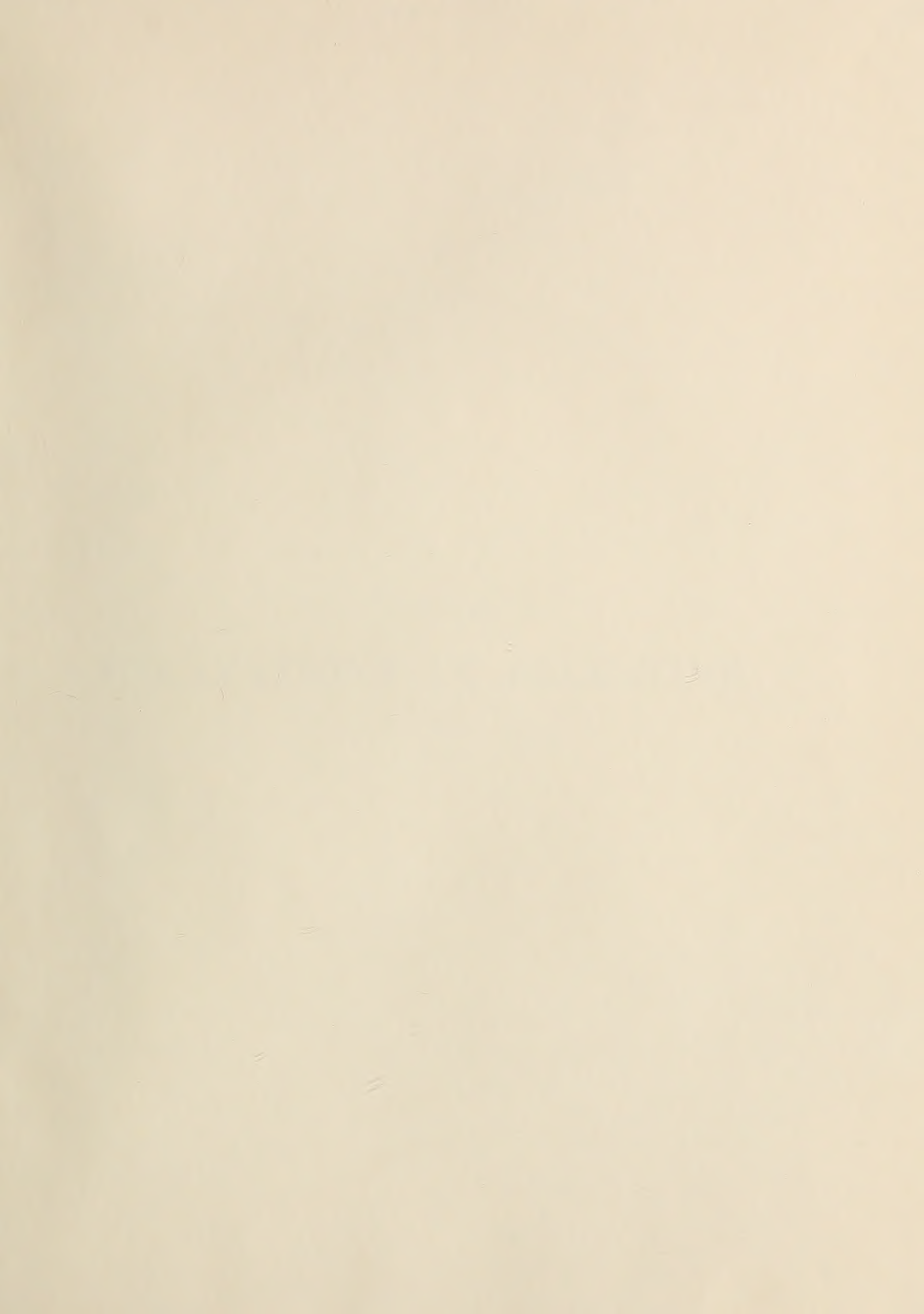

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EXCAVATIONS IN PALESTINE.



Excavations in Palestine

During the Years 1898–1900.

BY

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AND

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With a Chapter by

PROFESSOR DOCTOR WÜNSCH,

AND

Numerous Illustrations from Photographs and from Drawings made on the spot by

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PREFACE.

THE results obtained by the excavations in the Shephelah, or 'Low Country' of Judah, which were carried out for the Palestine Exploration Fund by Dr. Bliss and Mr. Macalister, during the years 1898–1900, are set forth in the following pages. In some instances the very full reports made during the progress of the work, and published in the *Quarterly Statements* of the Fund, have been condensed, or abridged; but nothing of capital importance has been omitted, and in each case reference is made in the text to the *Quarterly Statement* in which the more complete description will be found.

The reader is also referred to M. Clermont-Ganneau's interesting restorations of the Greek inscriptions of the Ptolemaic period found at Tell Sandaḥannah (*Quarterly Statement*, 1901, pp. 54 sqq.), and to a very suggestive Paper on "The Influence of the Ægean Civilisation on Southern Palestine" by Mr. F. B. Welch (*Quarterly Statement*, 1900, pp. 342 sqq.).

Part I, which deals with the excavations at Tells Zakarîya, eṣ-Ṣâfi, ej-Judeideh, and Sandaḥannah, and with the identification of sites, has been written by Dr. Bliss, who was in charge of the excavations. Part II, in which the pottery and other objects found are described, is the joint work of Dr. Bliss and Mr. Macalister, with the exception of a chapter on the limestone inscriptions of Tell Sandaḥannah, which was contributed, at the request of the Committee, by Professor Doctor Wünsch, of Breslau, who is

a recognised authority on imprecatory inscriptions. Part III, by Mr. Macalister, is devoted to the rock-cuttings of the Shephelah, and is the first attempt to minutely describe and classify the cup-marks, vats, presses, and subterranean rock-hewn caves, chambers, and passages which are nowhere more numerous and remarkable than in that district. The plates and illustrations, excepting those reproduced from photographs, are the work of Mr. Macalister.

The following abbreviations have been used :—

Q.S.—The *Quarterly Statements* of the Fund.

T.H.—*Tell el-Ḥesy*, by Prof. Flinders Petrie, published by the P.E.F.

M.M.C.—*Mound of Many Cities*, by Dr. Bliss, published by the P.E.F.

D.B.—*Dictionary of the Bible.*

H.G.—*Historical Geography of the Bible*, by Rev. Prof. George Adam Smith.

P. and C.—Perrot and Chipiez.

Z.—Tell Zakarîya.

S.—Tell eṣ-Ṣâfi.

J.—Tell ej-Judeideh.

Sn.—Tell Sandaḥannah.

September, 1902.

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ERRATA.

Plate 56, for J. read Sn.

Plate 57. The ג may be supplied from Plate 56, No. 28 (see pp. 121 n., 123 n.).

Plate 78, for terra cotta read unburned clay.

Plate 80, for Sn. read J.

PART I.

THE EXCAVATIONS.

CHAPTER I.

SKETCH OF THE EXPEDITION.

For many years the Committee of the Palestine Exploration Fund have realized the importance of conducting excavations at Tell eṣ-Ṣâfi, which has been identified by many authorities with Gath. In the spring of 1897, while still engaged in the Jerusalem excavations, I was notified that this site had been selected as the centre of the next operations. According to the Turkish law on excavations, a given permit may include a maximum of ten square kilomètres, spread over an area of any shape. Hence I was requested to examine the region of which Tell eṣ-Ṣâfi is the centre, in order to include in the request for a permit such ruins as appeared to be ancient and important. On this archæological survey I was accompanied by the Imperial Commissioner, Shaukat Effendi.

Application to the Turkish authorities for a permit was made through the British Consulate and Embassy at the end of June, 1897; but, owing to various circumstances, it was not actually in our hands until October 19th, 1898. The permit included the important sites of Tell eṣ-Ṣâfi, Tell Zakarîya, Tell ej-Judeideh, and Beit Jibrîn, to which Tell Sandaḥannah belongs. Besides these, there were the five small sites, Khurbet ej-Judeideh (an outpost of the tell of that name), Khurbet eṣ-Ṣurah, Khurbet 'Okbur, Khurbet Nuweitif, and Khurbet Dhikerîn. On none of these sites is the accumulation deep, or, judged by the pottery, as old as Jewish times. Since our campaign closed, we hear that some interesting tombs, probably late Greek, have been illicitly opened at Khurbet 'Okbur.

According to the terms of the permit, all objects discovered, including duplicates, were to be the property of the Imperial Museum—the excavators having the right only to drawings, photographs and casts. Not only was a Commissioner of the Museum attached to the camp to see that the law

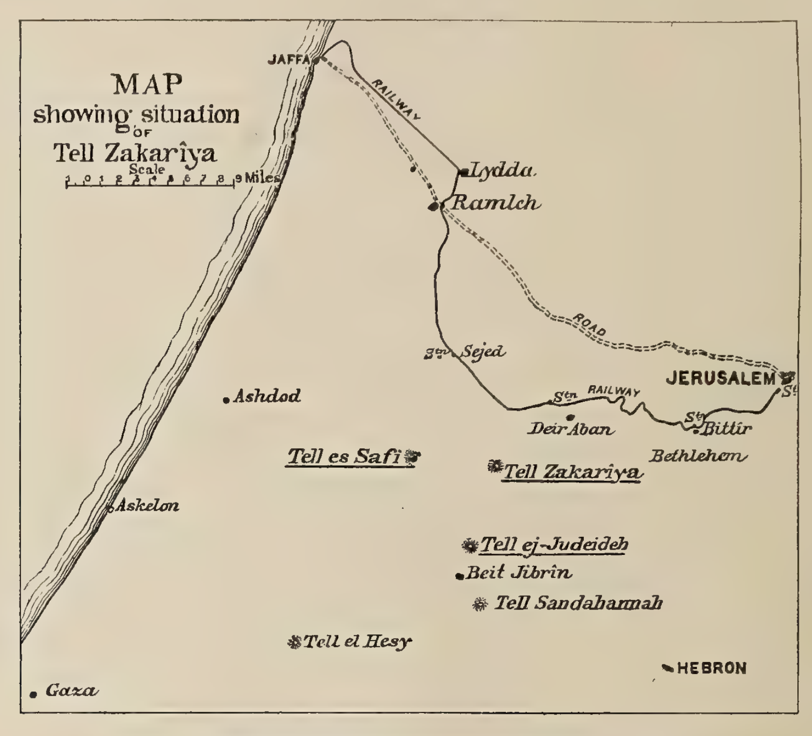


FIG. I. MAP SHOWING SITUATION OF SITES EXCAVATED.

was enforced, but before the delivery of the permit I was obliged to sign a declaration stating that I would observe all the laws on excavation. The direction of the campaign was in my hands. Mr. Macalister took charge of the measurements and drawings, and made a special, detailed study of the rock-cuttings.

The field of our excavations was the Shephelah, that much-contested border-land between the Hebrews and the Philistines. From a point about three miles west of Solomon's Pools, south-west of Bethlehem, the four sites excavated may be seen in a single glance. Far away to the west lie the blue waters of the Mediterranean, fringed with yellow sand-dunes. Inland from the sea, the rich Philistine plain stretches to the low green hills which roll to the feet of the rocky Judæan mountains. Through the heart of the rolling country there runs a chain of hills in a north-north-

east direction, for about six miles, from Beit Jibrîn to the Vale of Elah. The bold hill, with steep brown slopes, terminating the chain to the north, is Tell Zakarîya, about nineteen miles from Jerusalem as the crow flies. The southern hill, covered with patches of sombre green, is Tell ej-Judeideh. About three miles south of this, and beyond Beit Jibrîn, which is hidden from this point of view, towers the circular top of Tell Sandaḥannah,—a dab of white against the darker landscape. Standing as a solitary outpost on the very edge of the plain, about five miles west-south-west of Tell Zakarîya, is Tell eṣ-Ṣâfi,—a landmark from every side, especially from the east, where its lofty white cliffs give it the name of "the Pure Mound."

Although Tell eṣ-Ṣâfi was regarded as the most important site, diplomatic and sanitary considerations led us to begin work at Tell Zakarîya. The former site is encumbered with a modern village and with cemeteries, while the latter shows a surface of arable fields. In the autumn Tell eṣ-Ṣâfi is usually full of malaria, while Zakarîya is comparatively healthy. It seemed wiser to establish our position in a new district at a spot where not only friction with the fellaḥîn could be reduced to a minimum, but where the health of the party would be less exposed to risk. I may note here that though our second season at Tell eṣ-Ṣâfi fell in the autumn of 1899, the place was fortunately almost entirely free from fever, owing to the defective rain-fall of the previous winter.

Our camp was pitched on Monday, October 24th, in the Wâdy eṣ-Ṣunṭ, Vale of Elah, which separates Tell Zakarîya from the village of the same name. Actual work did not commence till Thursday, in order to allow for negotiations with the peasants, who were to be at once our landlords and our workmen. It was agreed that we might excavate the tell, which that autumn was lying fallow, on condition that after the completion of the work the surface should be restored to its original condition. The question of compensation was to be deferred till the time of ploughing, as nothing was to be paid for the right to excavate. After the first rains, when the time came for the tell to be planted, we hired the part which included the large fortress, paying a certain ground rent, based on a considerably exaggerated estimate of the amount of barley it was supposed to be capable of producing.

The question of wages was not so easily settled. As Zakarîya is in the heart of a charcoal country, we had to compete with that trade, which furnishes work all the year round. Again, our arrival was synchronous with

the olive-gathering, which made the people more independent. The wages finally agreed upon ranged, according to the age, sex, and capacity of the labourer, from $5\frac{1}{4}$*d.*, half a franc, to 1*s.* 1*d.*, averaging about a franc per day. This rate never varied during our two years' work, but we secured all the competent men we wished during the harvest time. At Tell el-Hesy the rates were lower, but all our work-people deserted us during the harvest, and we were obliged to raise the men's wages during the ploughing season. Of this sum 10*d.* may be put down as wages and a halfpenny as *bakhshîsh*, as I adopted the system of giving a small present for each find, varying directly with the apparent value of the object and often inversely with its size. This method proved to be the best for securing the preservation of small objects which might escape the notice of a man or boy working merely for day wages. During subsequent seasons we provided each gang with a sieve, and insisted upon its constant use, but with very few exceptions the smallest objects, as beads, or scarabs, were observed by the digger before the earth was thrown into the sieve. The total amount paid in *bakhshîsh* during the two years' of work was £31 12*s.*,—not too large a price to pay for the certainty that the loss of minute objects had been reduced to a minimum. During my frequent rounds, while the men were at work, I sorted the pottery and other finds, marking such as were worthy of preservation. These were brought to the tent at sunset, when the amount of *bakhshîsh* was assessed and entered into my note-book. This system had one drawback, in that the men were tempted to palm off on us objects brought from elsewhere. They were, however, under close supervision, and were instructed to show at once to Yusif, the foreman, any object out of the ordinary. In case of fraud, detection was almost certain, from the age and nature of the object itself, from the absence of fresh earth clinging to it, from the cross-examination to which the alleged finder was subjected, and from the fact that as a rule a number of men worked together, rendering testimony available. When deceit was proved, dismissal was summary, but on the whole we had very little trouble on this score. The simplicity of the fellaḥîn, and their ignorance of the dates of objects, were exhibited by a youth who showed me as an "antika" a button from my own clothes, which he acknowledged he had picked up from the surface of the tell.

At first we employed only men and boys, as the women and girls were shy, but after we had gained the confidence of the whole village, the

female element predominated. We succeeded in training a band of excellent work-people, some of whom followed us from site to site, becoming members of the camp. Four names on our first week's pay-roll appear again on our last regular pay-roll. Under the firm but kind discipline of Yusif, they worked not only faithfully but with intelligence, showing sometimes a genuine interest in the progress of the work.

Tell Zakarîya is 1,214 feet above the level of the sea, and the view from the top is far-reaching. To the west it extends over almost the whole land of Philistia to the distant sea. In the foreground the most prominent feature is the bold hill of Tell eṣ-Ṣâfi. A lofty wely on the coast marks the position of Ascalon. The sites of Ekron, Ashdod and Jamnia may be made out. To the north-east the gardens and houses of Ramleh, and the sand-dunes near Jaffa are distinct. To the east appears the high wall of the Judæan mountains, separated from the tell by low hills, sparsely and soberly clad with brush and scrub, and divided by shallow valleys rich with olive trees. The main work of the first season included the tracing of the outlines of a large fortress of irregular shape, and an examination of part of its interior in a large clearance to the rock. As many such clearances are referred to in the following chapters, it may be as well to explain their nature, and the methods employed in making them. They are a compromise between studying a site in general merely by shafts and trenches, and its exhaustive examination by clearing away the entire accumulation to the rock. Where they are made in arable land, the necessity of filling them in again adds much to the labour and expense. A rectangular area is marked out into squares of ten feet. To each square are assigned four workmen,—a digger, a man to fill the baskets, and two boys to carry away the earth, which is piled up on three sides of the area. The increasing depth of the pit soon demands gang-planks, on which the boys may ascend. At Tell eṣ-Ṣâfi, where the rock was 30 feet below the surface, we left two earth stairways in excavating the western line of the pit, and dug two slanting trenches as a means of egress to north and south. As the journey from the bottom of the pit to the place for depositing the earth and stones grew longer, we increased the number of boys, and assigned to the digger the task of filling the baskets as well. All buildings that had to be removed, in order that we might explore underlying layers, were first carefully planned. If, after rock had been reached, it was deemed desirable to extend the clearance, a new area was marked into squares on the side which had been left free from the piled débris. The

earth dug up was cast back into the first pit, being retained by a stout wall built on the rock along the side facing the new section. In this way the "eastern clearance pit" at Tell Zakarîya was excavated in four sections (*see* p. 19).

By the end of the first season, which closed December 21st, on account of the winter rains, the main outlines of the history of Tell Zakarîya had been determined. The question of its identification with Azekah or Socoh is considered in Chapter VI. The second season at the same site began March 20th, 1899, and closed April 22nd, when preparations were made for moving to Tell eṣ-Ṣâfi. Actual work, however, was not begun till May 4th, in consequence of the obstinacy of the people, who contrast unfavourably with the cheerful and active inhabitants of Zakarîya. The dull, listless aspect of the former we traced to the influence of the deadly malaria, which gives Tell eṣ-Ṣâfi an evil name in the whole district, and appears to have reacted upon the *morale* of the people, producing a character both stupid and suspicious. At first we employed a good many local labourers, but when the harvest set in, all these deserted, and we were glad to have only our trained Zakarîya workmen, many of whom slept in a large tent on the edge of the camp. Our tents were pitched on a breezy height north of the tell, with the Philistine plain immediately below us, stretching its brilliant corn fields to the gleaming Mediterranean. For our use in the heat of the day we constructed a booth of poles and branches of the *kharrûb* tree, a great improvement in summer upon canvas. By the middle of July it was considered prudent to interrupt the work for part of the summer. Owing to the modern village and cemeteries mentioned above, we had found the spaces available for excavation few and scattered. Still we were successful in tracing the ancient rampart, and in discovering in a pre-Israelite layer, at a depth of 20 feet, three rude monoliths *in situ* which doubtless represent a heathen High Place.

The autumn work at Tell Zakarîya, beginning September 8th, and ending October 2nd, added little to what had been learned before concerning the history of that site. Even more disappointing were the results of our second season at Tell eṣ-Ṣâfi, which began October 9th, and lasted till November 22nd. About the only find of interest was an early pre-Israelite jar, 33 inches high, almost whole, and standing upright at a depth of 20 feet. It was empty and covered over with the fragment of a dish, showing the finer form of comb-facing. As only fragments of this type of jar had pre-

viously been found, there was a peculiar gratification in raising it to the surface and in transporting it intact to the camp. It stood in a safe place till the day of our moving to Tell ej-Judeideh. An especially careful workman was detailed to carry it to the new camp. It appears to have been foreordained, however, that the ill-luck brooding over our last season at Tell eṣ-Ṣâfi should continue to the end. Attracted by the fun of seeing the camels loaded with our strange and wonderful household goods, a crowd of children had gathered on the slope far above the camp. By pure accident a little girl loosened with her foot a big stone, that came crashing down the hill right upon the precious jar, which of course was dashed to pieces. Fortunately it had been photographed the day before (Fig. 2), but this fact failed to console, as we gathered up the fragments and packed them in a big box.



FIG. 2. JAR, EARLY PRE-ISRAELITE PERIOD.

We left Tell eṣ-Ṣâfi, the excavation of which had been the chief purpose of the campaign, with somewhat mingled feelings. On the one hand we felt assured that the places available for digging had yielded up almost all their results. On the other hand it was a disappointment to recognize that these were so meagre. The finding of statuary in a rubbish heap suggested that somewhere in the tell there were remains of important buildings of the Greek period. As no signs of these appeared in our excavations, we were forced to conclude that they lie buried under the modern village or under the various cemeteries where excavation is absolutely prohibited. And yet we did not regret the time spent at the site. In view of its apparent importance, the excavation of Tell eṣ-Ṣâfi was inevitable, and there was a certain satisfaction in the feeling that, having been excavated by us as fully as the various circumstances permit, it may now be struck off the list of sites to be examined. What bearing the work had upon the identification with Gath is discussed in Chapter VI.

The work at Tell ej-Judeideh was begun under rather gloomy auspices Ground was broken November 27th, but owing to the fierce storms, only

fourteen days had been devoted to active excavation when the works were closed, December 16th. During this brief season we were able to work out the system of fortification. Much more cheerful was our second season, which began March 19th, 1900, and ended June 1st. With the exception of a few days of sirocco, the weather was charming. The tents were placed on a natural platform of hard, dark soil, surrounded by rocks and bushes, among which anemones and cyclamen grouped themselves in natural bouquets. The joy of spring seemed to fill the hearts of the workmen, who returned to their digging with renewed zest and spirits.

At this site hopes of important discoveries were based upon the accessibility of the pre-Israelite remains, which could usually be reached on the third day of the digging, whereas at Tell eṣ-Ṣâfi a similar stratum could not be examined till after ten days' work through the superimposed débris. In the short time at our disposal we were able to uncover only one twenty-fourth of the area of the tell, and little new light was thrown on the early period. Still, had Tell ej-Judeideh been the first site on our programme, the opportunity to handle so easily an extensive stratum of the most ancient débris yet found in Palestine might have tempted us to take the risk of clearing off the entire accumulation. The most important actual results from this site consisted in the large number of vessels and stamped jar handles, which enriched our knowledge of the Jewish period of Palestinian pottery.

On Monday, June 4th, the camp was moved to Tell Sandaḥannah, and excavation was begun the next day. The work done at this site was unique in the history of Palestine excavation. At Tell el-Ḥesy we proved the existence of eight superimposed towns, but only one-third of each stratum was excavated. Excavations at Jerusalem have been confined, necessarily, to certain features, such as the enclosure of the Temple, the city walls, a few churches, streets, pools, etc. At Tell Zakarîya we traced the large fortress, thoroughly excavating one-half of the enclosed area, but the rest of the town was only partially examined. At Tell eṣ-Ṣâfi and at Tell ej-Judeideh the town limits were recovered by excavation of the walls, but work within the towns was confined to various isolated places. At Tell Sandaḥannah, however, we recovered almost an entire town, probably the ancient Mareshah, with its inner and outer walls, its gate, streets, lanes, open places, houses, reservoirs, etc., and thus had the satisfaction of presenting to the public an inclusive and systematic plan. The numerous objects from this Seleucidan town are described in Part II.

An especially interesting find occurred near the beginning of the season. On the morning of June 14th. while searching for the city wall near its south-west angle, in the débris covering a rude mud flooring within the line of wall to a depth of from 2 to 3 feet, one of the men came across a minute fragment of limestone incised with Greek letters. Later in the day, in the presence of the foreman, he discovered, at the same place, a portion of a tablet 3½ inches long, made of the same material and also inscribed in Greek. Associated with the rubbish were fragments of limestone, showing the markings of draught-boards. As the man who made the discovery was one of the most careful of the workmen, he was retained at the place, and, later, another careful digger was associated with him. I spent a good deal of time watching them dig, and saw several specimens turned out. The excavation was an extremely slow and delicate affair, as the tablets were so friable that a blow of the pick might easily destroy them. Sieves could not be used, lest the jolting of the small fragments together should result in their fracture. All stones, of any shape or size, were carefully dusted, as often the slight incisions were filled with earth. The carefulness of the diggers was stimulated by increased *bakhshîsh.* This excavation was continued for seven days, and extended for some distance beyond the circumference within which the tablets were scattered. The search was not abandoned till the nature of the soil was found to have completely altered. Fifty stones were preserved, but two or three of these proved to be uninscribed. Owing to the extraordinarily soft nature of the material, it seemed doubtful at first if casts could be taken without destroying the inscriptions. However, continued exposure to the sun so hardened the stones that good casts were secured with practically no damage. The stones were cleaned by an application of oil on cotton. A camel's hair brush was also of use. In addition to the casts, excellent photographs were obtained. The majority are in Greek, the rest being Hebrew. At my request the Père Germer-Durand kindly consented to visit the camp for the purpose of studying the Greek inscriptions. He was the first to point out that these were in the nature of exorcisms, incantations, imprecations, etc. (*see* Part II, Chapter IX).

In the environs of Beit Jibrîn are several ancient cemeteries, which have in recent times been systematically rifled by the fellaḥîn. As one of these is situated near Sandaḥannah, our presence arrested the unlawful pillaging, which fortunately had not been as extensive as in other cases. The tomb-chambers are hewn in the rock, and are approached by a rectangular rock-

hewn shaft, closed at the bottom with slabs, and filled up with earth. Thus where the rock is below the surface all superficial signs of the tomb are wanting. As it seemed wise to confine the main work to the tell, our search for tombs was necessarily incidental. In this we employed two Beit Jibrîn men who had been at the business before. On the third day we struck a filled-in shaft, and, having cleared out the east end, watched with considerable excitement the removal of two slabs at the bottom. Ordering the *fellaḥ* to come up, we descended through the opening, and to our dismay found that the covers of the graves were strewn all about the chamber. We then compared the slabs removed with the other shaft-covers, and found that they differed from the latter in size and setting. It was clear that at some period unknown to us, as well as to the fellaḥîn, this tomb had been discovered, robbed, and rudely closed in again. Thus far, our diggers had been chary of giving us information, but they now told us that of the numerous tombs they had opened, not more than one in ten had been discovered intact. This fact somewhat alleviated our disappointment, and explained the comparatively small number of objects from Beit Jibrîn which have been offered for sale in Jerusalem. During the next two days we found four more rifled tombs, but on the sixth day we were fortunate enough to discover two which had escaped the ancient pillagers. The covers of the graves were *in situ*, but only in one case cemented together. From these tombs we recovered many interesting objects, including the charming terra-cotta Astarte (Fig. 52, p. 139). The search was continued for several days, but we found no more unrobbed graves. An examination of other rifled cemeteries in the vicinity of Beit Jibrîn proved that they all belong to a late period, probably late Greek.

Though Beit Jibrîn has a reputation for being malarial, we did not suffer in our lofty camp pitched immediately to the east of the tell. On the whole, we found the summer agreeable, as the air of these foot-hills has not the excessive dampness of the sea coast nor the excessive dryness of Jerusalem. The heat of the day was usually tempered by cool breezes. Owing to the increased distance from the railway, we had our stores brought direct from Jerusalem by camel. Our comfort was looked after by our good friend Mr. A. T. Gelat, dragoman of the American Consulate, to whom we were indebted in countless ways.

On August 28th the tell had resumed the appearance it had before we first broke ground. A traveller walking the next day over its flat top would never have suspected that a few days before he could have strolled through

the streets of a town, entered its houses, examined its walls, counted its towers. As little would he have suspected from superficial indications the existence of the extraordinary system of rock-hewn chambers which honeycomb the whole district round about. During the last season, while I was superintending the work above ground, Mr. Macalister was deep in the bowels of the earth, conducting the first systematic examination ever made of these wonderful, mysterious *souterrains*. This labour was by no means easy, involving the passing of long consecutive hours in stifling air, creeping on hands and knees through long passages, and ascending steep slopes of chalky débris in order to secure measurements.

Several months after the work was closed, I took my brother over the field. By aid of maps and plans I indicated to him what work had been done, for, as the excavations had been filled in, hardly any impression of our digging remained. But on descending from the tells into the villages we found an impression of our work, gratifying because it was an impression on human hearts. Our welcome from the work-people, men and women, boys and girls, culminated at the village of Zakarîya. No longer did our coming mean gain, good wages, and delectable *bakhshîsh*. We were simply old friends, honoured guests, bringing nothing, receiving unbounded hospitality. As we sat in the upper room of Aḥmed ʿAli, waiting for the platters of meat and rice to be brought in, the circle of men increased till the place was crowded. Cordial were the greetings, hearty the inquiries for Mr. Macalister and Yusif, many the humorous reminiscences of past events. I returned to Jerusalem cheered with the thought that at least from the point of view of our relations with the people our campaign had been a success.

F. J. B.

CHAPTER II.

THE EXCAVATIONS AT TELL ZAKARÎYA.

Tell Zakarîya (Pl. 1) is at the northern termination of a chain of hills



FIG. 3. VIEW OF TELL ZAKARÎYA FROM THE EAST.

running N.N.E. from Beit Jibrîn. It rises abruptly for 350 feet above the Wâdy Zakarîya (a continuation of the Wâdy eṣ-Ṣunṭ or Vale of Elah), which sweeps round its northern and eastern sides. To the west the fall is also great, while to the south the tell is joined by a neck of land (from 150 to 200 feet below the summit) to the chain beyond. Here and there, especially to the south and west, the fall is broken by broad terraces. The sides of the tell are honeycombed with chambers and other souterrains hewn in the soft limestone rock.

The summit of the tell, 1,214 feet above the sea, is in the form of a rude triangle trending north-eastwards from its base, the road from the

valley striking the summit at its apex. It consists of a plateau having a distinct edge (see Pl. 2), with a raised mound at the south-east corner, rising from 19 to 23 feet above the plateau level. The extreme length of the plateau is about 1,000 feet. Its greatest actual breadth, in a line taken from Tower II, across the "rock outcrop" and under the mound, is 500 feet. The lowest level of the plateau is at a point on the edge at Tower II, which is taken as the zero point in marking levels. A glance at the plan will show that from the line E—F to the apex of the triangle the summit is fairly level, while south of E—F the surface is more irregular. The relation between the present surface and the rock was determined by a series of sixteen shafts. It will be seen that the present surface line of débris follows approximately the rock contours, except at the west side, where the débris runs level to the edge, while the rock has a gentle slope. The débris is usually in two distinct layers. The first, resting on the rock (except at one point, where the red virgin soil was found), is from 2 to 10 feet thick, and consists of hard dark-brown soil. Above this there is invariably a stratum of light, grey soil, ranging in thickness from 4 to 9 feet.

Aside from these preliminary investigations, the excavations at Tell Zakarîya fall into four classes :—

(1.) *Study of the towers at the edge of the plateau* (Pl. 2).

We have noticed the distinct edge to the plateau. This is a feature common to many artificial mounds whose tops are comparatively flat, such as Tell el-Ḥesy, Tell el-Mutesellim, etc., and from this fact alone we cannot argue that Tell Zakarîya was purposely levelled The sides of the pits along the edge were carefully examined, but in only one case did the light grey soil show the angle of shot rubbish. However, a study of the three towers found at the south-west inclines us to the opinion that some levelling took place at the latest period of occupation. When we began work the lines of the three towers were distinctly traceable in one course of stones cropping out from the slope. These stones are now much weathered, but were apparently once well-squared (notably at the tower angles), and are fairly large, ranging at Tower II from 9 to 18 inches in height. On trenching round the walls we found that the masonry *below* the surface of the slope consisted of rough random rubble, laid in mud, and set so irregularly as to suggest strongly that they must always have been below ground. At Tower II the rubble is distinctly smaller than the stones which appear above the slope (Fig. 4). Towers I and II project from the edge, while Tower III projects from the slope a few feet below. Their faces range in length from 18 to 19½ feet. It was not ascertained whether they rest on the rock or not, but they were found to descend for many feet under the surface. From Tower I a wall similar in construction to the underground rubble of the tower itself was found running north-west towards Tower II. It is not set on the rock ; only a few courses appear, buried under the slope. No wall runs off from the other side of the tower, the latter having a distinct corner. In a long transverse trench between Towers I and II we failed to find a continuation of the wall just mentioned, but struck a flight of steps leading into a rudely built chamber through

an opening about 4 feet wide, with a mud flooring some 7 feet below the edge of the plateau level. However, from the north side of Tower II a similar wall, buried by the slope, and not resting on the rock, was found running towards Tower III. It is 11 feet 6 inches thick at the top, but narrows as it descends. This was picked up 21 feet beyond, and traced for 7 feet, where it appeared to return at right angles in a wall 2 feet thick. At the south-east angle of Tower III a rude wall, similar to those described before, was found, while the absence of a wall on the other side was proved. No superficial traces of other towers were observed to the north, though search was made.

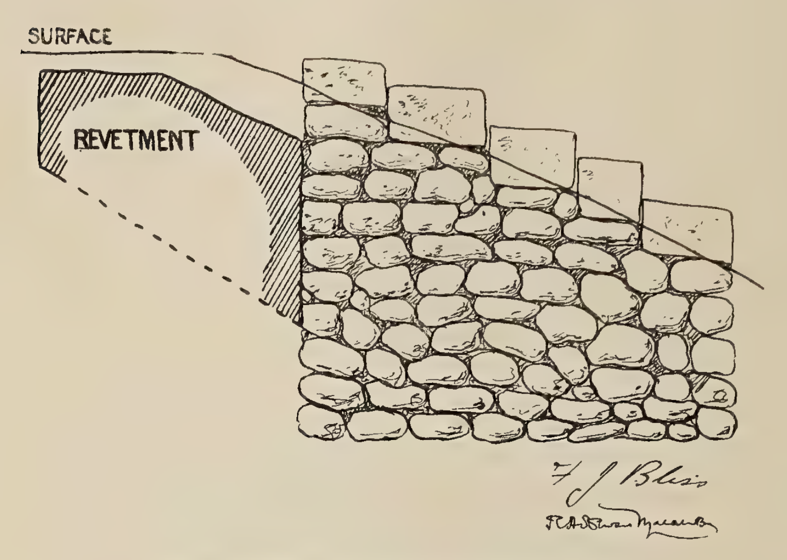


FIG. 4. DIAGRAM OF THE REVETMENT TOWERS.

In arguing as to the relation of the constructions described above, I would start from the assumption that the ground-line of the three towers at their time of building was the line of the present slope, as supported by the difference of masonry above and below the slope. As the walls running from the towers are apparently of the same date with those towers, and as these walls are buried by the slope, which appears to be unchanged since the towers were built, it would appear that these walls were erected in places as a sort of revetment or retaining wall when the edges of the plateau were levelled, and then buried by the slope formed over them. They never appeared above the surface, and did not connect the towers, as their absence in places under the presumably undisturbed slope shows. The towers thus rose isolated from the edge of the plateau at its south-western corner, at a point where, as the contours show, attack was to be dreaded. The steps leading to the rude house between Towers I and II would, according to this view, antedate the towers and the formation of the slope.

As these towers appear to belong to a period when the main accumulation of the plateau had been formed, it seems probable that they date from the late period indicated by a very small proportion of Roman and Byzantine pottery found on or near the surface of the raised mound. To this same period may belong the facing of roughly-coursed stones or sort of *glacis* on the eastern slope found in one place to be laid in two thicknesses.

(2.) *Tracing the acropolis wall under the south-east mound* (Pl. 3).

The outlines of this building are in solid black lines; the hatched wallings have no organic connexion with the main building, and will be explained later. The shape of the fortress appears to have been conditioned by the south and east contours of the hill. It is an irregular four-sided construction, with a tower at each of the four angles as well as in the centre of the north and west sides respectively; the line of the east wall is broken by an off-set at a point 33 feet from

Tower VI, whence it runs straight to Tower I. Measured on the inside the north wall is 116 feet 6 inches, the west wall 221 feet, the south wall 124 feet, and the east wall (neglecting the off-set) 170 feet (*see* elevations, Pl. 10).

When we first arrived the only actual signs of building consisted of a course of stones projecting from the surface here and there between Towers II and III and Towers III and IV. The clue being thus given, we speedily ascertained the thickness of the walls at various points, and thus were able to run trenches, from 2 to 10 feet deep, along their outside and inside faces. These trenches were deepened to the rock at an angle of all the towers, except Tower VI, and at several places along the main wall. Wherever tested, both main walls and towers were found to rest on the rock, except part of the inside wall of Tower IV, which rests on a rude mass of stone, forming the sill of the door, and extending under both jambs, as well as under the doorway between the two chambers of the tower itself; and also, except the inside corner of the offset, to the east, which rests on about 5 feet of débris, though the part of the same wall immediately to the south rests on the rock. In the making of the large clearances more than a quarter of the north wall, and more than half of the west wall were exposed to their foundations, in places more than 20 feet below the surface, along the inside face. (*See* Fig. 5.) In the open trenches appeared the full extent of the north and west walls, the complete outlines of Towers I and V, all but a small part of Towers II and IV, and the main angles of Towers III and VI. Only the western half of the south wall was traced, for as we worked towards Tower VI the remains were found deeper and deeper, and the soil became unfit for tunneling, containing stone-chippings as well as many large well-squared stones. However the wall was picked up again in a shaft which hit immediately upon the angle it forms with Tower VI. The west and south sides of this tower were traced in a tunnel terminating in the open air at the south-east corner which occurs on the steep slope of the hill. In a section at this point the earth-strata were observed to slope towards the masonry, suggesting to Mr. Macalister that the fortress was at one time surrounded by an earthen rampart. Search for a central south tower—*i.e.*, between Towers V and VI, was unsuccessful.

The east wall was exposed along its entire length, either in open trenches or in tunnels. It has no central tower but, as already mentioned, north of Tower V it runs out at right angles for 17 feet, and turning again, runs straight to Tower I. Twenty feet of the inner face of the wall, southwards from the inner corner of this bend, were excavated to the rock, and the wall was found standing to a height of 18 feet.

The building (hatched on plan, Pl. 3) which occurs just outside of Tower I, and whose south wall appears on plan to be let in to the east wall of the fortress, is a puzzle. It does not rest on the rock. It was excavated as far as practicable, in order to ascertain its relation to the fortress, but the masonry of both is so rude that it is difficult to come to any decision. We are inclined to regard the hatched building as the older structure; in this case the upper wall of the later fortress was carried over the ruined foundations of its south wall. There are no data for determining the use or the age of the isolated mass of masonry outside of Tower I. Built into it is a fragment of a door-sill containing a socket, which indicates the former existence of some large gateway at some part of the tell. Outside of Towers III and V are rude walls, just under the surface, clearly late, as their foundations are only 3 or 4 feet deep, and rest on some 15 feet of débris.

Doors found connecting three of the towers with the interior of the fortress suggested the level at which the main gateway of the latter should be expected. Unfortunately no such entrance was found. The absence of a gate in the north wall was proved, as well as in the part of the west wall which is between Towers III and IV. Between Towers IV and V the wall soon becomes ruined below the level of the sills of the tower entrances, and it is possible that a gate once existed along this line, as some entrance from the plateau would be expected. The

natural place for the main gateway is at the south, where the tell is joined to the chain of hills by a broad flat neck, which would serve as a break in the steep ascent from the valley. But the south wall is ruined below the probable level of the gateway, hence, if this once existed here, all traces of it are lost. We sank a shaft to the rock at a point near the south edge of the tell opposite to the central point of the south wall, in the hopes of finding a stairway or some indications of an approach, but with no success.

The fortress appears to have been originally plain, the towers having been added at a later period. Tower II is simply joined on, without bond, to the main wall, which runs behind it. The side walls of Towers I, IV, and V run back through the main wall, forming straight joints with it (*see* Pl. 5). These towers appear to have been let bodily into breaches purposely made in the wall. In the case of Tower I, it was proved that the breach in the wall had not reached to the rock, the lower part of the main wall serving as the lower part of the back wall of this tower. I must admit that, in view of the fact that a considerable amount of débris existed when the main walls of the fortress were built, and that probably more had accumulated when the towers are supposed to have been added on, it is puzzling to find the straight joints extending below the supposed ground line to the rock at two points at Tower IV, and at one point at Tower III. However, that the towers were let in as described above appears to me to be the best explanation of these joints.*

Doorways were found connecting the interior of the fortress with Towers I, III and IV. These entrances are mere openings in the walls, roughly silled, with no signs of door-sockets or other indications of the fitting in of a door. The sill of the entrance at Tower IV is 7 feet below the surface, that of the east entrance at Tower III is 3 feet higher, and that at Tower I 4 feet higher, suggesting that the interior of the fortress had not precisely the same level at all points. Another doorway, blocked in ancient times, was found to Tower III, in this case entering the tower from the south; its level is 8½ inches lower than that of the east doorway. No entrance was found to Tower II. Tower V is ruined much below the level of the door-sill to Tower IV, and no signs of a door remain. No search was made for a door at Tower VI. A thin partition divides Tower IV into two chambers of unequal size, connected by a doorway.

From the door-sill of the open entrance to Tower III an offset of 8½ inches was traced along the inside face of the west wall as far as the point where Tower IV is let in. This does not extend beyond Tower IV, nor was a similar offset found in the north wall. The height of this offset above the rock ranges from 9 to 14 feet. Above the offset four courses of masonry occur, consisting of stones larger and better squared than those found below. The two lower courses are interrupted at one point by a drain, 3 feet 3 inches square in section, which runs through the wall. An offset was found in the exterior face of the north wall, between Towers II and III, about 7 feet under the surface, and about 13 feet above the rock. A similar offset at about the same level is found running round Tower I (*see* Pl. 10).

With the exception of Tower II, whose face measures only 25 feet in length, the faces of the towers appear to have been designed to have the same general length; but the actual measurements range from 29 feet 6 inches to 32 feet 1½ inches. The projection of the towers ranges from 13 feet 6 inches to 16 feet 9 inches. The variations may be partly due to the fact that the measurements were taken at different levels, owing to a varying condition of ruin. The thickness of the main wall was measured at several points, and found to be: 5 feet 9 inches, 5 feet 10 inches, 6 feet, 6 feet 3 inches, 6 feet 6 inches, 6 feet 7 inches, and 7 feet 6 inches

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* They might also be explained as the place of meeting of the work of two separate gangs of workmen, one employed on the tower, the other on the walls.—R.A.S.M.

respectively; the last measurement, however, was taken at a point on the east side where the wall is ruined down far below the original ground-level, where a greater thickness would be expected. The thickness of the tower walls ranges from 4 feet 8 inches to 5 feet 3 inches.

The main walls of the building are formed of rubble laid in mud, mixed with straw, without lime, containing some well-worked stones, irregularly intermingled with field stones of various sizes. The maximum size may be deduced from the following measurements, taken from larger stones selected here and there:—2 feet 10 inches by 1 foot 7 inches, 2 feet 10 inches by 2 feet 2 inches, 3 feet 3 inches by 1 foot 3 inches, 5 feet 1 inch by 1 foot 9 inches. Above the original ground-line the masonry is always brought to courses, but below this it is sometimes found uncoursed, smaller stones being used.

In general the masonry of the towers, as excavated, consists of fairly large rubble brought to courses, with well-squared stones at the external angles. Most of the masonry remaining appears to have been below the original ground-line, except at Tower IV, where four of the five courses of well-squared stones were probably above the ground-line. At Tower I, below the offset, we observe large drafted stones, with prominent bosses, badly set. At the other angles we find well squared masonry, extending in two cases for a few feet along the tower faces. For the rest the stones are rough, occasionally interspersed with bossed stones, and containing at two points a stone covered with plaster, in one case ornamented by a pattern consisting of squares.



FIG. 5. INTERIOR OF FORTRESS, TELL ZAKARÎYA, N.W. CORNER.
(From "Sunday at Home.")

Towers II and III appear to be of the same construction, but the masonry revealed in the shafts sunk to the rock at the east outer angle of Tower II and at the west outer angle of Tower III contains some vermiculated stones. A shaft was sunk to the rock at the junction made by Tower IV with the wall running south, and the upper part of the whole south-west side was laid bare, including probably all that remains of the masonry originally above the ground-line (*see* Pl. 5). At the junction 13 feet of the wall remain standing, showing $5\frac{1}{2}$ feet of rubble above the rock, on which are five courses of stones squared and dressed, averaging 18 inches in height; the lowest course is ruder than the rest. The masonry is badly jointed, and set in mud containing a very slight proportion of lime, appearing as small particles. The stones fall generally under two classes—plain faced and drafted with boss. In both classes we observe several stones set on end—*i.e.*, having a height much greater than the breadth—a characteristic noticed all over the building. The plain faced stones are mainly quarry-picked, but one is slightly dressed in diagonal lines, and another prominently chisel-picked. The bossed stones have drafts varying from 2 to 4 inches in width, dressed with a broad

chisel, forming horizontal strokes, except on the top drafts, where they are vertical. One stone has no top draft, and on another the drafts are picked diagonally. A fragment of plaster is found on the draft of another stone. The stone at the extreme left in the fourth course from the top shows a draft along the top edge only; this feature is found on another stone in the main wall, and is characteristic of the masonry of a wall found inside the fortress. The bosses vary in regularity, some projecting with straight sides 2 inches. Their faces are scabbled or pock-marked. The last stone to the left in the top course is flush-drafted, or vermiculated. In the stone to the extreme left in the third course, counting from the top, the upper strip has been left rough, and the rest dressed by the strokes of a chisel used obliquely, alternately up and down, so as to produce a chevron-like pattern. Two similar stones were found in Towers II and III respectively; the latter, however, was so placed that the undressed strip was vertical.

The tools used in the dressing of this piece of walling seem to be those employed in the rest of the building, and are: a broad chisel, a narrow chisel, and a sharp-pointed pick. No signs of the comb-pick (so generally characteristic in Palestine) are found anywhere, but in some cases the broad chisel appears to have been held sideways, so as to make saw-tooth marks. The bossed stones of the Zakarîya tower are not unlike the specimens shown on pages 117 and 119 of my "Excavations at Jerusalem," found on the scarp to the west of the Old Pool. This scarp represents the line of city wall at the time of Herod, and the masonry may date as far back as that time (*ib.*, pp. 326, 335).

The débris in which the walls of the fortress now lie buried ranges from 13 to 24 feet in depth. This was proved by the pottery to consist of two strata, varying in relative thickness at different points; a late pre-Israelite stratum* on the rock, slightly disturbed in Jewish times, and a second containing some pre-Israelite types, but mainly characterized by Jewish types mixed with Seleucidan ware, with two or three per cent. of Roman, or Byzantine ware found near the surface at some points only. The fortress shows evidence of two periods of construction, as indicated by the addition of towers to an originally plain building. The ground-level of the later period is indicated by the levels of the sills of the doors in the towers, whose height ranges from 9 to 14 feet above the rock. At this later period not only had the walls below the level of the door-sills been buried by the débris of the lower stratum, but part of the upper stratum had already been formed: the upper portion of this stratum containing most of the Seleucidan ware found, as well as the very few Roman types, had not then accumulated. Accordingly we are inclined to assign a Seleucidan date to this second period, or the period of the towers. Sir Charles Wilson, who saw the masonry of the towers *in situ*, has tentatively suggested a Maccabæan origin, from the resemblance of the masonry to that of the buildings at Machærus.†

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* For the meaning attached to the terms "pre-Israelite" and "Jewish," as applied to pottery, *see* pp. 72, 73.

† See *Quarterly Statement*, 1899, p. 336.

That a considerable amount of débris had already accumulated when the fortress was originally built was proved by the discovery of the trench dug for the foundation. At several points along the inside face of the north wall, from 6 to 10 feet above the rock, a free space of 2 or 3 inches appeared between the wall and the face of the débris; owing to stones fallen against the wall above, or to some such obstacle, this space had not been filled up. Thus it is clear that the fortress was not contemporary with the earliest occupation of the tell, *i.e.*, in late pre-Israelite times; and, if the identification with Socoh, or Azekah be correct (*see* Chap. VI), its erection may be the work of Rehoboam, who fortified many towns in Judah and Benjamin, including these sites (2 Chr. xi. 5–10). The finding of some of the oldest types of pottery as well as of other early objects in the upper stratum, is explained by the necessary disturbance of the lower stratum when the foundation-trench was made. The very slight proportion of Roman, or Byzantine ware at some points near the surface may be due to a temporary occupation when the ruined fortress was repaired for winter quarters or for an especial defence.

No cross walls were found within the fortress, bonding into the outside walls and subdividing it into chambers, although many walls, some abutting on the main walls, were discovered. We conclude, therefore, that the fortress was simply a large enclosure for protecting houses built within.

(3) *Excavations within the Fortress area* (*see* Pls. 3, 4).

We now turn to the interior of the fortress, about one-half of whose area was excavated in the manner described on pp. 5, 6. Some of the walls were left standing, and in the cases where these were not founded on the rock the piles of earth left as a support were necessarily unexamined. At one point a large cleft in the rock filled with boulders and stones was not cleared out, and two cisterns were not emptied of all their débris. Otherwise the rock was entirely laid bare over the whole excavated area. The depth of soil ranged from 13 to 24 feet, the average accumulation being about 18 feet. Some 175,000 cubic feet of soil were thus examined. On Pl. 3 the two areas excavated are enclosed by thick black lines. One area—which we will call the west clearance pit—extends southward from the north wall of the fortress, between Towers III and IV. The other—or eastern clearance pit—is more in the centre of the building, and extends towards the east wall, part of which was excavated to its foundations. This portion was excavated first, and afterwards a pier of earth was left for safety between it and the western clearance pit.

The levels of the foundations of the walls unearthed are indicated on the plan by a difference of hatching: those founded on the rock or within 3 feet thereof are cross-hatched, those founded on débris from 3 to 10 feet from the rock are hatched to the right, and those founded on débris over 10 feet from the rock are hatched to the left. This hatching does not always indicate the relative age of a building. The fact that a wall is on the rock does not necessarily relegate it to the

earliest period, as its foundations might have been sunk through débris. However, the greater the accumulation of débris under the foundations of a wall, the later that wall should be placed. Thus all the walls hatched to the left must belong to a late period. Where walls are associated with a flooring, the level of the latter indicates the real ground-level of the building, and helps to determine its relative age. The heights at which the large vats *in situ*, and pit-ovens occur, also furnish an indication of archæological level. In a series of occupations, during which the building material was chiefly stone, it is impossible to assign each building to a particular period, or to count the exact number of periods, as we were able to do at Tell el-Ḥesy, where mud-brick town rose directly above the ruins of mud-brick town, and where ground-plans of part of each town could be made. However, a study of the plans and sections at Tell Zakarîya will show that there must have been at least four occupations. Three section lines have been taken through the east clearance pit; sections AB and EF are drawn to face both east and west, making five sections in all. In the sections (Pl. 4) the remains of the various constructions are shown *in situ*, the earth in which they were bedded being treated as though transparent. For the sake of clearness, however, and in order to avoid unnecessary repetition, the area included in each section is bounded by the next section line. Thus in section EF, looking west, no walls are shown beyond CD; section AB, facing east, is of a different character, its purpose being to show the nature and stratification of the soil. Here the wall of earth which formed the east boundary of the first quarter of this clearance pit before the second was excavated, and which lay a little to the east of the section line, is shown in elevation, and bounds the area of vision.

We may now refer to the more important constructions in detail.* In the vicinity of wall No. 3 we have distinct indications of four periods. These occur in the western clearance pit, of which no section lines are published. Immediately above the rock we found a portion of a very rude mud-flooring *in situ*, covered with earth to the height of a few inches, containing inscribed Hebrew jar-handles with two-winged symbols similar to the types found at Jerusalem by Warren, near the rock at the south-east angle of the Haram. Above this occurred a mud flooring, somewhat less rude, broken, but *in situ*, on which was a burned layer containing stamped jar-handles with four-winged symbols. For both types, *see* Pl. 56. The foundations of wall No. 3 are 2 feet 3 inches higher than the level of the second flooring, and thus must belong to a later building. The foundations of the wall running obliquely to the west are 3 feet 9 inches higher than those of wall No. 3; it may, however, be no later, but it is certainly later than the second flooring, and is earlier than wall No. 1, which once ran over it. The number of occupations at this point is thus brought up to four: (1) The lower flooring, (2) The higher flooring, (3) The oblique wall, (4) Wall No. 1.

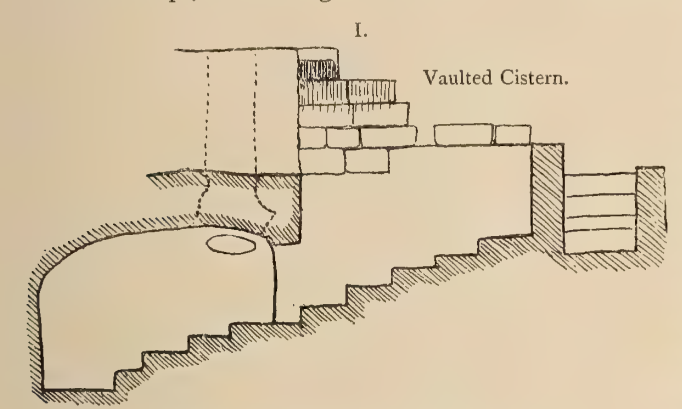
No. 4 is a flooring of grey mud, some 10 feet below the surface and 6 feet above the rock. It is broken along three edges, hence, its former extent cannot be determined; but it probably was co-extensive with the rude rubble wall, 3 feet thick, against which it terminates at the north. In the centre was sunk a stone vat, shaped like a bowl, 7 feet 7 inches in circumference, the bowl being 1 foot deep. The curved wall in the corner probably represented a fire-place; the floor here consisted of mud of a reddish colour. Wall No. 5 partly blocks up the entrance to a rock-cut chamber (*see* Pl. 93). It is approached by an oblique shaft with five rock-cut steps descending to within about 6 feet of the bottom of an oval chamber. We cleared this of its débris, in which was found buried on its side a large jar, with a bowl placed near the mouth. For this type of deposit, *see* Pl. 82. A number of large flat stone discs were also found. No. 6 is the largest piece of wall found within the fortress; it first appears on the south side of the vaulted cistern (over which it probably ran), and it extends into the

* For minor details, see *Q.S.*, 1899, pp. 176–182.

west clearance pit, where it turns at right angles, forming a distinct corner. At this point it runs over another wall, which extends north. The pit-ovens, shown on section AB, facing west, may belong to the same period. Such ovens were found in the higher levels at Tell el-Ḥesy, dating from 900 to 400 B.C. The type is common in Syria to-day. A hole is dug in the ground some 3 or 4 feet deep, the sides are plastered with mud, with or without straw, sometimes laid on in rings, the bottom in some cases being also plastered; a fire of twigs is kindled at the bottom, and when these are reduced to coals and ashes the dough, flattened out, is stuck on the sides of the oven and thus baked. Thus the base of a pit-oven *in situ* may be taken as representing a level 3 or 4 feet below the ground level of the period at a given place.

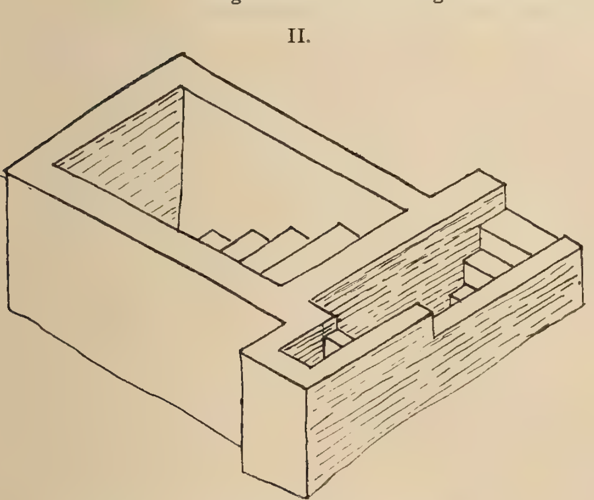
The vaulted cistern over which wall No. 6 runs is partly excavated in the rock, having four rock-hewn steps, descending from east to west. Similar stepped cisterns were excavated by me at Jerusalem. The rock was plastered in two coats. Above the rock-cut portion rise masonry walls, also plastered, terminating in a semicircular vault. The rock-cut part of the cistern may go back to the earliest period, but the vaulted portion was probably underground at the time it was used, and hence is relegated to the period of the long wall running above it. It is quite possible that we have here an ancient cistern vaulted over during the brief Roman occupation. The pottery found in the cistern was later than that in the débris banked up outside its walls. This cistern

I.



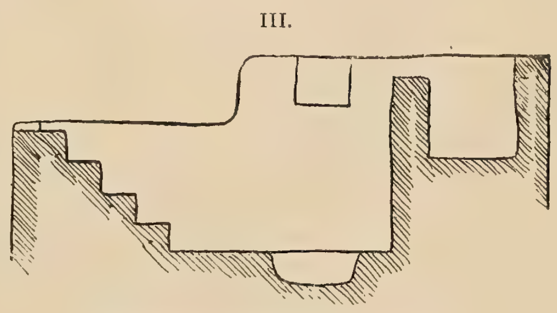
Longitudinal section through three cisterns.

II.



Isometric view of vaulted cistern and cistern to east, with vat.

III.



Transverse section through vat and cistern to east of vaulted cistern.

FIG. 6. SYSTEM OF WATERWORKS.

forms part of a series of waterworks (Fig. 6). To the west is a cistern, cut in the rock, approached by a shaft, partly masonry and partly rock-hewn. The built part reaches nearly to the present surface, hence this cistern must have been used in the latest period. Its

dimensions are about 18 feet long by 14 broad, and it is also stepped down. At the east end it was once connected with the vaulted cistern by a hole cut in the rock, which in later times had been filled up with masonry. Section I passing through these two cisterns shows a continuous series of steps. The western cistern had been plastered after the connexion was closed. A number of distinct water-lines run round the walls. To the east of the vaulted cistern is another stepped cistern, the steps running at about right angles to those of the former. Above the rock-hewn part they have a wall in common. The eastern stepped cistern is joined on the south to a built vat. To the south of these waterworks is a series of large stone vats for the making of wine or treacle. They are *in situ*, and belong to the middle period of the tell.

The centre of section EF, looking west (Pl. 4), shows a clear indication of three periods. First the wall near the rock; then, 8 feet above, the room with mud flooring, with one wall *in situ;* and then, 5 feet above this, in the immediate vicinity, the base of a pit-oven, which must have been sunk in the débris, burying the room. The cleft in the rock is marked on Pl. 3, because we found cast down into it great quantities of pre-Israelite potsherds, with some whole vases. Cistern No. 10 was not fully excavated; it seems to have been filled up in the latest times, a few fragments of Roman ware appearing in it. The semicircle marked "corn-pit" is part of a circular cutting in the earth for storing corn; grains of barley were actually found adhering to its sides. These corn-pits were a feature of the higher cities at Tell el-Ḥesy, and are still common. They were easily detected by the fact that the soil filling them up differed from the soil in which they had been excavated.

The broken flooring, No. 11, was found *in situ.* It is made of mud and ashes grouted in small pebbles, and is about 3 inches thick. Immediately below is a flooring of similar construction. We have here clear signs of a room whose flooring has undergone repair. In the centre is a bowl-shaped vat of stone, having its top edges flush with the upper flooring, and projecting 3 inches above the lower flooring, in which it is also sunk. We have mentioned a similar vat in flooring No. 4, which has the same archæological level. At the north end of No. 11 a cubical block of stone was sunk down into both floorings, projecting 8 inches above the level of the higher. This may be a household altar, or, perhaps, merely a seat. Section EF, looking east, shows indications of three periods of construction. The steps leading down to the mouth of cave No. 13 are older than the wall above, against which a vat (No. 12) is placed, and this wall and vat are plainly older than the room, which contains a pit-oven, 8 feet above the vat and only 6 feet away. The same section shows a portion of the inner face of the fortress wall, with the corner where it runs out east. The foundations of this corner are very bad, and rest upon about 5 feet of débris, though 20 feet to the south the wall rests on the rock.

The above description of the remains of constructions found at various levels in these large clearance pits will easily account for the disturbance of the soil and the consequent mingling of the pottery styles. We have seen that some constructions belonging to the later period are founded on the rock, to reach which earth containing fragments of the earliest ware was necessarily brought to the surface. Notwithstanding this disturbance, a careful daily inspection of all the sherds exhumed justified us in distinguishing two strata. The lower stratum was mainly characterized by ware of the second or later pre-Israelite period. The earlier styles were generally absent; the few specimens found appear to have survived to the later period. (Such a

survival was proved at Tell el-Ḥesy, where a comparatively undisturbed stratification is preserved.) This late pre-Israelite period begins about 1500 B.C. Associated with this ware were scarabs of the XVIIIth Dynasty. The upper stratum, as we have seen, was mainly characterized by Jewish pottery, with some Seleucidan types, and a very small percentage of Roman or Byzantine sherds, not sufficient to account for a long occupation. From the data available then, we would offer the following summing up of the history of Tell Zakarîya. Though not founded in the earliest period, it was already inhabited when Joshua entered the land, and was fortified in Jewish times, possibly by Rehoboam ; during the Seleucidan period the acropolis was strengthened by the addition of towers, and, finally, after a brief occupation in Roman and Byzantine times, the place was deserted. Before we leave this section, mention should be made of a few graves found near the surface within the fortress. These were lined, as well as covered in with slabs. From the fact that the heads of the skeletons pointed south, the fellaḥîn recognized them to be Arab, but claimed no recollection of a cemetery at this place. Similar graves found at Tell eṣ-Ṣâfi were assigned by us to the Saracenic period (p. 36) ; and a similar forgotten cemetery was found at Tell el-Ḥesy (p. 122, "Mound of Many Cities"). In all three cemeteries common Arab glass bracelets occurred.

(4) *Large clearance pit on the plateau.*

The plan of this plateau is shown in Pl. 2. The most favourable point for excavation seemed to be along the line C—D, in the centre of which a quantity of early pottery had been revealed by a trial shaft. This point was taken as the centre of a large clearance to the rock, 80 feet by 60 feet, worked in sections each 30 feet broad, according to the method described before. The rock lies at an average depth of about 12 feet. A third section, of the same dimensions, was begun, but deepened for 7 feet only, this depth representing the stratum in which Jewish inscriptions might be expected. The débris showed the two strata found in the fortress ; the lower, pre-Israelite, and the upper, Jewish ; but though the latter showed an intermingling with older styles, Seleucidan types were rare, and Roman fragments absent. In treating of so small a site as Tell Zakarîya it is not safe to dogmatize as to the extent of any given occupation, but the presence of Seleucidan ware at the top of an average accumulation of 18 feet in and about the acropolis, and its comparative absence from an accumulation of only 12 feet on the plateau, certainly suggests that in the post-Exilic period the acropolis only was occupied, while in pre-Exilic times the town covered the whole tell.

Immediately under the surface we found many walls, some of which enclosed small rooms. They are built of rubble, and range in breadth from 2 to 4 feet. The walls stand nowhere for more than 3 feet, and they rest immediately on the débris. They are much ruined, many are in their present condition isolated, and nothing would be gained by publishing a full plan, which without much reconstruction would be unintelligible. We submit, however, a plan of a portion of the remains, which contains a system of stone vats (*see* Plate 6). The three small vats, *b*, *c*,

and *d*, globular in shape, are sunk in a dwarf wall 3 feet high. One foot below its top there is a cement flooring, flush with the rims of the vats *e* and *f*, as seen on section line CD. There is no direct means of connexion between the higher and the lower system, and the liquid (wine, oil, or treacle) must have been transferred manually from the vats in the wall to the vats in the floor. In passing a yard at Beit Jibrîn I noticed a system of vats not unlike those just described. A man and his wife were scooping out oil, just pressed from the olives, from one vat and pouring it into another. The internal depths of vats *b*, *c*, and *d* are 18, 15 and 22 inches respectively the diameters at the mouth are 14, 14 and 12 inches respectively; all-over diameters across top, 30, 31 and 33 inches. Vat *c* has a small groove near the top. The two lower vats, *e* and *f*, are 28 and 18 inches in depth respectively; diameters at mouth, 44 and 49 inches; thickness of sides, 4 to 6 inches. Vat *a* probably belongs to this same system. Vats *g* and *h* were sunk below the level of the flooring, and their tops are flush with the base of the adjacent wall. The flooring, however, is ruined, though traces of it remain immediately along the line of the wall. The large jar with four handles, near vat *g*, appears to be a foundation deposit (*see* Pl. 82).



7. LARGE STONE VAT, TELL EṢ-ṢÂFI.

The measurements of vats *g* and *h* are as follows:—Depths, 19 and 21 inches respectively; thickness of sides, 4 to 6 inches; largest internal axis, 36 and 48 inches. Vat *i* lies under one of several dwarf walls, only 1 foot high, which divide a plaster floor into compartments, probably used as vats. Vat *i* is, of course, earlier than the compartments. It is 16 inches deep, and 18 inches across the mouth. The bottom was broken out, and has been repaired with a fine white cement. On its surface signs ot pock-dressing appear. Large single stone vats were very common throughout the excavations. Fig. 7 represents one of these, from Tell eṣ-Ṣâfi.

The cistern shown on the plan consists of a natural cavern, with a shaft built up to the present surface in two rings of rude masonry, not concentric, with a rough filling-in between them. The top was covered over with large slabs immediately under the surface, though the existence of the shaft did not seem to be known to the fellaḥîn.

In the lower or pre-Israelite stratum was found another series of very rude constructions, too ruined to form a coherent plan. Signs of two periods were observed; for example, a circular brick construction had been broken into by the foundatious of a later wall. This resembled a large pit-oven, but, as the usual signs of burning on the interior surface were absent, it must have served some other purpose. Its over-all diameter was about 4 feet, the walls being 7 inches thick, consisting of sun-dried bricks, white with red facing, both inside and out. Signs of a small opening appeared about 2 feet from the bottom. On the floor inside was a layer of ashes, containing small fragments of pottery, stones with traces of severe firing, and human bones, also burned, including a radius, a pelvis, a bit of a tibia, and a fragment of a sacrum. That these had not been burned within the construction is proved by the absence of firing on its walls. It is an open question whether the bones were deposited on purpose or whether we have here an ordinary receptacle for grain into which bones had been accidentally cast. Another possible explanation occurred to us while the construction was being cleared out. Above the ashes it was filled with débris containing fragments of brick, which appeared to be parts of the ruined walls of the construction itself. Three ot these contained circular channels, of about 1 inch diameter, which suggested the *tuyères* found in the pre-Israelite furnace excavated at Tell el-Ḥesy (*see* my "Mound of Many Cities," p. 46), which, however, showed a much larger chamber, having a diameter of 7 feet. The absence of firing in the Tell Zakarîya construction appears to militate against our supposing these channels to be *tuyères*. No such channels were found in the 3 feet of walling which remain standing. Their purpose, hence, remains obscure.

The finds at Tell Zakarîya fall under the following classes:—

(1) *Pottery.* The specimens chosen for illustration from the numerous objects found at this site are marked Z on the pottery plates. A comparatively large number of unbroken vessels were excavated in the lower plateau. There were several examples of pre-Israelite jar-deposits within the fortress, and one Jewish example immediately outside the fortress wall. The local painted ware of late pre-Israelite times at this site was neither as plentiful nor as elaborate in decoration as at Tell eṣ-Ṣâfi.

(2) *Bronze objects.* The most interesting discovery in bronze was the rude figure, possibly of the goddess Atargatis, described on p. 148. The other objects include fibulas, spatulas, arrow-heads, knives, chisels, rings, bracelets, pins, needles, etc.

(3) *Iron objects.* The most important of these was the cuirass (in fragments) described on p. 150. The others include nails, bolts, a door-hinge, hasps, arrow-heads, rings, chisels, knives, a fibula, etc.

(4) *Bone objects.* On the plateau in the lower stratum were found together the incised strips on Pl. 76, which may belong to a game, such as dominoes. The other finds include prickers, *styli*, a ring, spindle whorls, needles, scarabs, etc. Punctured shells were very common. Fragments of large food-shells were also found.

(5) *Stone objects.* The larger objects were vats, troughs, roof-rollers, dishes, draught-boards, mortars, flat discs with hole in centre, corn-rubbers, etc. The smaller objects include hammer-stones, pestles, cups, catapult-balls, bottle-stoppers, slate spindle-whorls, an engraved seal-cylinder, a mace-head, beads, weights, fragments of alabaster vessels, etc. Worked flints were very common. A large quantity of flakes, which apparently had been unused, found together in the lower stratum of the plateau, suggested a manufactory.

(6) *Coins.** The earliest coin was an Athenian piece of 10 drachmas, coated with silver. Obverse : Archaic helmeted head of Athena. Reverse : Owl with olive branch and Persian counter-sign. Date, 526–430 B.C. The rest of the coins were : three small Ptolemaic coins, badly preserved, recognized by eagle and head of Jupiter ; five Maccabæan coins ; one coin of the Procurator Annius Rufus, and one coin of the Constantine series.

(7) *Paste objects.* These were in the form of beads, scarabs, and Egyptian amulets (*see* Pls. 83 and 84).

Especial mention should be made of a jar discovered on the rock within the fortress, near wall No. 5 (*see* Pl. 3), containing numerous objects. This jar deposit appears to belong to a different category from those described in Chapter VIII, Part II. The jar was not large, having a globular body, but the upper part was quite destroyed. It was standing on the rock, and the fact that many objects were found in it and none in the immediate vicinity proves that it was *in situ.* The jar contained very fine earth, which appeared to differ from the surrounding soil.

The objects are as follows :—(*a*) 81 carnelian beads of various shapes : nine of these are in the scarab form, the bases being plain, except one, which is marked with a star. Twenty are in bottle form, the perforation being on the neck. These shapes are characteristic of

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* For the identification of the coins described in this volume, we are pleased to acknowledge the valuable help of Dr. Selah Merrill (U S. Consul, Jerusalem) and Herbert Clark, Esq.

Egyptian beads of the late eighteenth and early nineteenth dynasties—1400–1300 B.C. These types may be seen associated with beads from Tell eṣ-Ṣâfi in the necklace Fig. 18, p. 42. (*b*) About 250 beads of enamelled paste and glass—blue, green, yellow, and red; cylindrical, spherical, and shuttle-shaped, with one in the bottle form. Another of the triple-cylinder shape is made of blue enamelled paste. (*c*) A collection of minute beads, rounded and flattened, apparently of bone, coloured yellow, brown, black, and green, with some white ones. (*d*) A round, black bead; a small red bead, resembling coral; and a bead formed of a resinous substance, now in a somewhat disintegrated condition. It is similar to a bead found at Tell el-Ḥesy, which was taken at first to be amber, but which turned out later to be identical in material with a specimen in the Geological Museum in Jermyn Street, brought from a resinous deposit near Mount Hermon by Sir Richard Burton. This specimen is not real amber. I regret that I omitted to notice this bead in my book on Tell el-Ḥesy, for the first examination thereof has led to inferences of an early trade between Palestine and the Baltic which the later examination does not justify. (*e*) A number of small bronze objects, including the following:— 1. A small child's finger ring. 2. Fragment of a similar ring. 3. Two pins rusted together (?). 4. A pin or small arrowhead. 5. A nondescript fragment, perhaps the hinge of a fibula. 6. A small pin. 7. A disc of bronze, semicircular in form. 8. A broken nail, square in section. (*f*) One small unpolished reddish stone. (*g*) Two polished pebbles. (*h*) Seven spindle-whorls. five of bone, two of slate. (*i*) A small bone bead, perhaps fractured, now in the form of a spindle-whorl, but possibly once of the hour-glass shape. (*j*) Three shells, all punctured for suspension: one cowrie, one cockle, one *purpura*. (*k*) Four scarabs: 1. Bone scarab of Tahutmes III (Pl. 83, 3). 2. Green paste scarab of Amnhotp III (Pl. 83, 2). 3. Small slate uninscribed scarab. 4. Scarab of olive-green paste, unidentified (Pl. 83, 4). (*l*) Four paste Egyptian emblems: 1. Figure of the god Bes. 2. Lion-headed figure (Pl. 84, 4). 3. *Utchat*, or Eye of Horus. 4. Figure with all characteristics destroyed.

F. J. B.

CHAPTER III.

THE EXCAVATIONS AT TELL EṢ-ṢÂFI.

TELL EṢ-ṢÂFI (Pl. 7) is situated 5 miles W.N.W. from Tell Zakarîya. The valley of Elah, coming westwards through the low hills of the Shephelah, sweeps round its north side and at once enters the Philistine plain. Tell eṣ-Ṣâfi thus stands as a natural fortress between the plain and the rolling country. The highest part of the tell, 695 feet above the sea, is at the south end, and is surmounted by a wely, or sacred building, dedicated to el-Khudr. From the river bed the ground slopes up gradually to the base of



FIG. 8. VIEW OF TELL EṢ-ṢÂFI. (From "Sunday at Home.")

cliffs of white limestone—in places bare, in others covered with weeds—which rise sometimes almost sheer to a height ranging from 100 to 150 feet. From the top of the cliffs the ground rises rapidly to the wely, which is 300 feet above the well near the river-bed. The summit of the tell does not show the flat surface of Tell Zakarîya. The ground near the grave-yard surrounding the wely is irregular and broken up by rubbish heaps. Beyond this it slopes down gradually north and north-east to the narrow plateau (214 feet above the sea), whose top is fairly level. The fall from the summit on the east side is at first rapid, and then more gradual; on the south the tell is joined to a ridge by a saddle some 100 feet below the summit.

The lofty south end must always have been the site of the acropolis. The mounds of rubbish represent the ruins of the Crusading fortress of Blanche-Garde, built in 1144 as an outpost of defence during the war with the people of Ascalon.

At several points along the slope of the tell there appear above the surface portions of a ruined wall. Following these clues we traced a large part of the rampart. We thus have, in all probability, the limits of the ancient city, as the rude construction of this rampart and the entire absence of mortar rule out the Crusaders as its builders. This wall follows the natural contours of the hill, which is more or less of crescent form, round its east, south, and west sides. On the precipitous north side a wall would appear to have been superfluous. Thus limited by the rampart and by the cliffs, the ancient city crowned the summit of the hill and extended partly down its slopes, having an extreme length of about 400 yards and an extreme breadth of about 200 yards. How little of this space is available for excavation will be seen by a glance at Pl. 7. The south end is largely occupied by the modern graveyard, the modern village rules out the north portion, while another graveyard extends over a great part of the narrow plateau extending to the north-east. We were thus confined to the steep slopes above the wall, to a portion of the north-east plateau, and to a narrow section across the summit, east and west, between the southern graveyard and the modern town. The last portion did not give us a free hand, as it is divided into three fields by lofty and dense hedges of cactus. The graveyard at the important south end prevented our searching for the ancient acropolis ; but even had the tombs not existed, the earliest remains could not have been examined here without digging through the foundations of Blanche-Garde.

Preliminary investigations were conducted by a series of shafts sunk at various points to ascertain the nature and depth of the accumulation. Three were sunk in a line east and west in the easternmost of the three fields into which the free space between the village and the southern graveyard is divided. In the shaft nearest the eastern slope, rock was found at a depth of 41 feet, in the others at 30 feet and 24 feet 6 inches respectively. For the first 5 feet, Arab pottery occurred. Below this for 5 feet more, the ware was of Jewish types; thence to the rock the fragments were pre-Israelite, growing more ancient as we descended. In the shaft nearest the slope the styles were naturally somewhat mixed in the upper levels, but the lowest 20 feet showed an undisturbed stratum of pre-Israelite ware. In the western field, just east of the point *b*, six trial shafts were sunk. In the shaft nearest the slope, rock was found at a depth of 24 feet 6 inches; in the shaft nearest the centre of the tell, at a depth of 12 feet. The pottery showed three strata: early pre-Israelite, late pre-Israelite and Jewish, the latter containing little Arab ware. Apart from these preliminary investigations, the excavation at Tell eṣ-Ṣâfi falls under six divisions:

(1) *Tracing the city wall.* (Pl. 7.)

On our arrival, small portions of the city wall were found exposed above the surface at *a*, *b*, *c*, *e*, and *f*. Long sections were laid bare by the excavations. At the points tested it was found to rest on from 6 to 11 feet of débris. As the foundations must have been sunk in a considerable depth of débris besides, it would appear that they were not built till a comparatively late period, probably in Jewish times. The wall was proved at several places to be 12 feet thick. The lower part shows external and internal facings of rubble with a packing of earth and small field stones. At one point the upper part consists of large mud bricks *in situ*, and the finding of a quantity of mud bricks fallen in front of the wall at another point suggests that the upper part had been built of brick. The face stones of the masonry are laid in mud mixed with straw. Projecting from the wall, at intervals ranging from 28 feet to 35 feet 9 inches, are buttresses, ranging in length of face from 30 to 34 feet. The maximum projection is only 2 feet: this is necessarily exaggerated on the small scale plan. The masonry consists of rudely-spaced rubble set in courses ranging in height from 1 foot 3 inches to 2 feet. At the coigns of the buttresses the stones are well squared and set, but otherwise the masonry is irregularly spaced, the interstices being filled up with mud and small field stones. The corner stones are mainly plain faced, though two or three drafted stones occur. The dressing appears to have been produced by a rather blunt chisel. When used at right angles to the stone, the chisel makes pock-marks, when held obliquely it produces coarse strokes with a maximum length of 1½ inches. There were no signs of the comb-pick. Apart from the corner stones the masonry shows no sign of careful dressing. In places the face of the wall has been plastered with dark mud and straw, over which is a whitish plaster, made by mixing a powder of unburnt limestone with straw and water. This kind of plaster is used in the Lebanon to-day.

The portions at *a* and *b* were found exposed and were not further excavated. At *a* a modern road enters the village; at *b* five courses crop out above the surface. South of the wely a special search was made for the city gate. From the position of the city it appears to be likely that the main entrance was from the south, somewhere between *a* and *c*. A road was observed by Mr. Macalister, 16 to 18 feet broad, cut in the rock, ascending the hill from the west and striking the *col* at a point south of the wely. Here it seems to turn north, as signs of a causeway appear leading towards the tell. At a point somewhat east of the spot where this road should strike the city wall we sank a shaft. Ten feet of the wall were exposed; the upper half consists of mud-brick, which had been subject to conflagration, the lower part of rude masonry. Fallen brick was found to a considerable depth in front of the masonry. We deepened the shaft about 3 feet below the line where the mud-brick ceased, as this line indicated the minimum depth at which the door-sill should be found, and drove a tunnel west. As the tunnel was over 4 feet high, it was improbable that the door-sill should be above the level of its top, and it seemed unlikely that we should fail to strike the jamb of the gate, on the supposition that the sill was below the bottom of the tunnel. After proceeding some 50 feet, we suspended operations owing to objections made to our tunnelling in the vicinity of the cemetery by the fellaḥîn, who utterly refused to see that between the tunnel and cemetery there existed a wall 10 feet thick. Hence our plans for finding a gate at the south of the city were frustrated. No entrance was found at any other point.

At the south end of the buttress at *c* we sank a shaft to the rock, finding 33 feet of the wall standing on 7 or 8 feet of débris. At about 17 feet below the surface we found the floor of a chamber, 20 feet long, built against the outer face of the rampart. The walls, which stand to a height of 7 feet, are plastered with a layer of unslaked lime, 3 to 4 inches thick; the flooring is similarly plastered. Around three sides of the room runs a low seat, built of closely-jointed blocks

of soft limestone, with an absolutely smooth surface. The edges are rounded, as though worn by sitting. On the stones, which are so soft that they may be scratched with the finger-nail, are several markings : a pentacle, circles, a rude maze, lines for a game as of draughts, etc.

The absence of a buttress along the 60 feet of wall traced at *d* is curious. Here at the base of the wall is a one-course footing with an offset of 1 foot 9 inches. At *e* a short flight of steps descends along the face of the buttress. Part of the wall at *f* has a marked batter, 2 feet 6 inches in 15 feet. It stands to a height of 21 feet on 11 feet of débris ; the upper courses were exposed on our arrival. The regularity of the buttress system at *g* is noticeable, the faces measuring 34 feet, 33 feet 8 inches, 34 feet, 33 feet 8 inches, and 33 feet 10 inches, and the inter-buttress spaces 33 feet 7 inches, 32 feet, 31 feet 6 inches, and 33 feet.

Beyond the last buttress the wall was traced no further, as it could have had but one direction, *i.e.*, round the steep slope below the eastern edge of the plateau. The north side of the tell is so precipitous that a wall appears to be superfluous, but had a wall once existed there it must have run along the top of the steep face, finally joining the portion at *a*.

(2) *The large clearance pit to the rock on the north-east plateau.* (Pl. 8.)

In the field at the east end of the north-east plateau, bounded on the west and south by the modern graveyard, we made a large clearance pit to the rock, 80 feet north and south by 60 feet east and west, with a maximum depth of 29 feet 6 inches, and an average depth of 26 feet. This pit was excavated in two sections in the manner described on pp. 5, 6. We laid bare the foundations of buildings which represent at least four occupations. These are as follows :—

(1) Immediately under the surface appeared a series of large rudely-constructed chambers, with walls consisting chiefly of rubble laid in mortar, but containing some dressed stones, which showed the unmistakable fine diagonal chiselling of the Crusaders. Several voussoirs scattered about had the same chiselling. The foundations of these walls were from 4 to 6 feet below the surface. The floor of these structures probably lay at about the present surface-level. (2) At a depth ranging from 11 feet to 14 feet occurred several walls, consisting of roughly-coursed rubble laid in mud, ranging in breadth from 2 to 4 feet. (3) At a depth ranging from 15 to 20 feet was a third series of chambers of similar construction. Some of the walls represent mere foundations of buildings, probably contemporaneous with the construction of the second system, but that others were antecedent to these, as far as the date of their building is concerned, will be shown later. (4) From a depth of 21 feet to the rock were found several isolated walls representing the ruins of the earliest period, and apparently independent of the wallings above. Though stone was the main building material, signs of decayed mud-brick were not wanting, and seven courses of a brick wall were found standing at a depth of 9 feet.

The only construction of importance occurred in the third system, which, as we have noticed, is complicated by foundations probably belonging to the higher or second system. This consisted of three upright monoliths, standing upon foot-stones, at a depth ranging from 18 to 20 feet below the surface, and enclosed by walls. On Pl. 8 are two plans side by side : plan II shows all the walls of systems 2 and 3 (*i.e.*, those whose foundations range in depth from 11 to 20 feet below the surface) ; in plan I we have eliminated such walls as appear to be later than the monoliths, leaving only those which seem to form a structure by which they were once enclosed. On plan II the two systems of walls are indicated by a difference in hatching. As the depths of rude foundations of any given building may vary from point to point, and as these rubble walls show no distinct signs of bond, the task of elimination was delicate, and hence it will be necessary to give the process by which such elimination was effected. The delicacy of the problem was enhanced by the fact that the area including these walls was excavated in two

portions, the western portion having been filled up before we suspected the existence of the "high place." All walls, of course, had carefully been planned. It should be noted that in the reconstruction of the "temple," while we have omitted walls, in no case have we added walls, but have merely carried on by dotted lines such ruined walls as actually exist.

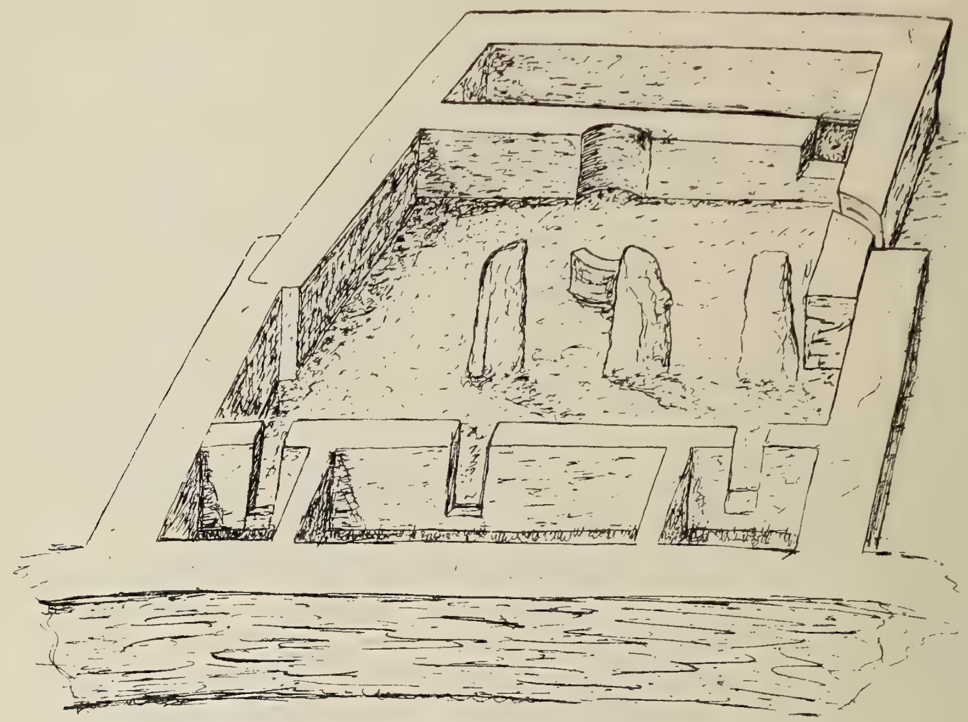


FIG. 9. ISOMETRIC VIEW OF THE "HIGH PLACE," TELL EṢ-ṢÂFI (Restored).

First, as to the monoliths themselves (*see* Pl. 9). In cross section they are irregularly oval, the surface being roughly flaked down. They consist of soft limestone, and are so much weathered that no signs of the tool used are left. Stone *a* tapers to a point; stones *b* and *c* taper slightly, but have comparatively flat tops. The heights of the three stones differ, but their tops are almost in the same horizontal plane; *a* is 5 feet 10 inches high, cross dimensions 30 inches by 24 inches; *b* is 6 feet 5 inches high, cross dimensions 27 inches by 19 inches; *c* is 7 feet 1 inch high, cross dimensions 31 inches by 21 inches: *a* rests on a roughly pentagonal foot-stone, measuring 24 inches by 20 inches, which stands on a second similar foot-stone set on débris; *b* and *c* have but one foot-stone each, that under *b* being roughly rectangular. Between stones *c* and *b* was found a row of rough field-stones, unworn by feet, and above this, separated from it by about 1 foot of *débris*, a second row. Between stones *b* and *a* was another similar row, about 4 inches higher than the lower of the two rows just mentioned. The line of stones continued between *a* and wall 4, and was found 18 inches lower beyond wall 4. This line appears to indicate a natural ground level, and hence the monoliths rose from 4 feet to 5 feet only above the surface.* Some signs of rubbing were observed on the exposed surfaces of the monoliths.

* The upper row of stones between *c* and *b* may indicate a later period when the monoliths were still further buried.

In the débris south of the monoliths, at about the level of the row of stones connecting them, was found a quantity of bones of camels, sheep, and cows. A few such bones were found under the foot-stone of *b*. These may indicate sacrifices.

Assuming this row of field-stones to indicate the ground-level of the structure, we may look for other signs of ground levels in the surrounding walls. At A we find a doorway with a footworn sill 10½ inches below the line of stones connecting *a* and *b*, but only 6½ inches below the lower line connecting *c* and *b*. Doorway A leads into the chamber bounded by the walls 1, 2, 3, and 4, which thus appear to have been in use when the monoliths were connected by the rows of field-stones. From the height still standing, wall No. 1 appears to have served for the later period as well. In the long wall 6, occurs a skewed opening (B), roughly silled with footworn stones, 1 foot below the line of stones connecting *a* and *b*, and only 1½ inches below the sill at A. A similar footworn sill occurs in the doorway C, 8 inches below the sill at B, 9½ inches below the sill at A, and only 20 inches below the line of stones connecting *a* and *b*. These sills are too nearly at the same level to admit of the supposition that they represent different periods, and hence appear to belong to one system of chambers, the flooring of which was slightly irregular. Moreover, the walls with which they are connected are either very nearly parallel, or very nearly at right angles to each other. Further examining the walls, we find wall 8 parallel to wall 6, and terminating at the south in about the same line. In wall 7 there is a break, roughly in the form of an apse, which is 4 feet 5 inches across and 2 feet 4½ inches deep. At first it was a question whether the break was due to the ruined condition of the wall, or whether it was a part of the design rudely carried out. The fact, however, that no signs of foundations occur at this point is in favour of the latter view, as, had it been a mere breach, the bottom row of stones would probably have remained. This view is strengthened by the position of the break almost midway between the parallel walls 6 and 8, and, further, by the fact that it faces a rude semicircle of stones having a diameter of 3 feet 7 inches, which is only 10 inches shorter than the diameter of the supposed apse. This semicircle stands to the height of 20 inches, and consists of two courses of stones. The level of its top is some 4 feet below the line of stones connecting *a* and *b*; hence if it belonged to the same system of construction we must suppose that several courses have been ruined. Wall 7, which is broken off a few feet west of the apse, probably once ran to wall 8, as indicated by dotted lines. On the western half of this wall a later wall, slightly thinner, was superimposed; this is omitted from Plan I. The chamber is bounded on the south by wall 3, and by its evident continuation, wall 9, which are very nearly parallel to wall 7. On Plan I we have extended wall 9 to the west. It is bounded on the east and west by walls 6 and 8, as far as the line of the monoliths, where the chamber is widened to the east by the breadth of wall 6, and wall 4 (which runs behind wall 6) becomes its eastern boundary. Wall 13 is retained on Plan I, as it appears generally to correspond to wall 4. The distance between walls 6 and 8 is about 32 feet, and between walls 7 and 9 about 30 feet; hence the chamber appears intended to have been a square, made broader towards the south end.

On Plan II the interior of this chamber may be seen to be crossed by various walls, which appear to belong to later constructions, and which are accordingly omitted from Plan I. The walls 10 were clearly constructed when the monoliths were no longer objects above ground, as they are built around *b* (standing about to the level of the top of this stone) and over the line of stones connecting *b* and *a*. The walls marked 11 enclose small rooms, unconnected by doorways, sufficient proof that they represent the foundations of buildings of a later period ruined down below their ground level. Moreover, these foundations are mainly higher than the ground level of the temple. Wall 12 is omitted from Plan I, first on the ground that it interrupts the symmetry of a building the general lines of which appear to be clear; second, it butts on to the monolith *c*, entirely obscuring one side of it, which was equally weathered with the other side;

third, in the north face of this wall a monolith 6 feet 3 inches long is built in sideways as a bottom stone, while projecting from under this face, 6 inches below its foundations, we found the round stone *e* (diameter 20½ inches), at about the level of the line of stones between *b* and *e*. We have here evidently the foot-stone of a fourth monolith as well as the monolith itself, the latter built into a later wall, probably contemporaneous with walls 10, which were erected at a period when the standing stones were neglected.

To the north of the large chamber enclosing the standing stones we have signs of a long, narrow chamber connected with the former by door C. Of its north wall (14) only the eastern portion remains, and has built into it at the point where it is ruined a stone vat, 30 inches in diameter, with a broken bottom. The position of this vat appears to be merely accidental, and illustrates the rude nature of the construction. Resting on the remains of this wall, and extending beyond it to the west, is a later wall (omitted from Plan I), which is probably contemporaneous with wall 11. To the south of the large chamber are signs of a series of small rooms, bounded on the south by wall 1. One such chamber—the one entered by door A—has the lower part of its four walls complete, and, as observed above, is shown by the level of its door-sill to belong to the period of the large central chamber. We are thus reminded of the division of the Greek temple into naos, pronaos, and opisthodomus, only in this case the space for the pronaos is subdivided.

In regard to the skewed opening at B, the sides are irregular on plan, though fairly plumb. The wall here (6) is ruined down to a level only a couple of feet higher than the rough sill, which consists of irregular footworn stones, the polish extending to a slight bend in the jamb, where it is unlikely that a man should step in passing through the supposed doorway. These considerations led me to question the fact whether we had here a doorway at all, or whether this were merely a point where the wall was ruined down to the level of some footworn stones which had been built into this wall, just as the broken vat had been built into wall 14. However, I am not inclined to be dogmatic on the matter. Mr. Macalister does not recognize this objection, and has advanced the ingenious and plausible theory that the opening was skewed on purpose to admit the rays of the rising sun on a certain day of the year, directly upon the apse in the north wall.

Under the foundations of wall 6 was found, apparently *in situ*, the irregularly circular stone *d*, 30 inches across, similar to the foot-stones under the monoliths. Its level is about 1 foot lower than that of the foot-stone of *c*. The stone *f* was found *in situ* about 1 foot higher than *d*. It has a rude pentagonal shape, measuring 24 inches across, shows signs of footwear, and is indented with three small sockets, 1 inch across and ½ inch deep Stones *a*, *b*, and *c* are in a line pointing almost due east (the reading of the prismatic compass is 92 degrees), but taken in connection with the bases *d*, *e*, and *f*, form part of a very rude circle. Now stone *d* is buried by wall 6, hence, assuming a connexion between the six stones, it seems probable that the stone circle was an object of veneration before the surrounding temple was built. By that time stone *d* must have disappeared from the system.

At a point 40 feet to the north of stone *b* was found a boulder, *g*, resembling a foot-stone, at a level about 5 feet below the general level of the other foot-stones. On the assumption, as a barely admissible hypothesis, that the stones described originally formed a circle, Mr. Macalister suggests that this might be the foot-stone of a monolith, such as is constantly found outside the circumference of such circles elsewhere; as the Friar's Heel at Stonehenge, and Long Meg, in the group known as "Meg and her daughters." The depth at which *g* was found would make it necessary to assume a much longer monolith than *a*, *b*, and *c*. That the structure is to be regarded as one of the "High Places" so frequently referred to in the Historical Books of the Bible, *e.g.* 2 K. xviii, 4, 2 Ch. xxxiv, 3, seems the only admissible theory of its purpose,

The pottery found in this large clearance pit is as follows:—

(1) An early pre-Israelite stratum, dating as far back as the 17th century B.C. (from a depth of 21 feet to the rock). (2) A late pre-Israelite stratum (from a depth of 11 feet to 21 feet), including a large number of pieces of painted ware. Some Mykenaean fragments were mingled with them. The ground level of the "high place" was near the base of this stratum. (3) A Jewish stratum (from a depth of 6 feet to 10 feet), containing jar-handles with royal stamps, early Greek ware (700–550 B.C.), a few specimens of Greek black and red figured ware (550–350 B.C.), and some Seleucidan types. (4) A Crusading stratum (from the surface to a depth of 6 feet), containing local Arab ware, sometimes imitated with modifications, as suggested by the rude head No. 7, Pl. 65. With the characteristic ware of the three upper strata were mingled specimens of older styles resulting from a disturbance of the soil in laying foundations.

Thus, according to the testimony of the pottery, the town indicated by the remains at Tell eṣ-Ṣâfi had a continuous history from the 17th century B.C., to Seleucidan times, when it appears to have been abandoned till the period of the Crusaders. By a process of exclusion we assign the building of the town walls to a middle period. The absence of mortar and of all signs of the characteristic stone-dressing appears to rule out the Crusading period. The fact that they are not built on the rock but on débris characterized by early pre-Israelite pottery, proves that they were not built contemporaneously with the first occupation of the tell. As their massive foundations must have been sunk in a considerable amount of débris already accumulated on the slopes, it seems improbable that they were built in the late pre-Israelite era. Accordingly it would appear that they date from the Jewish period, perhaps representing the work of Rehoboam, who fortified many cities, including Gath, with which Tell eṣ-Ṣâfi may possibly be identified.

(3) *Large clearance pit in the westernmost of the three fields between the modern village and the southern cemetery.*

In this field we made a large clearance to the rock, 80 feet long by 60 feet wide, and on the average about 16 feet deep. Allowing for space to deposit the earth, this was about as large an excavation as the field would permit. The results from this laborious excavation corroborated what we had already learned of the history of Tell eṣ-Ṣâfi from the clearance pit described above, but unfortunately added nothing new. The pottery showed three strata—Jewish, late pre-Israelite, and early pre-Israelite. The extreme paucity of Arab ware in the upper

stratum was curious. This absence may be explained by the occurrence of Arab graves (similar to those found at Tell Zakarîya) immediately under the surface of this field. These were unknown to the fellaḥîn, and hence must date several centuries back; we would suggest that this field may have been a Saracenic cemetery, left unmolested when the Crusaders built Blanche-Garde. Walls were found at two different levels, in some cases still enclosing small rooms, two of which have door-ways. The construction is far ruder than that of any building found at the north-east plateau; in fact, the houses appear to be quite as wretched as the hovels of the modern village.

(4) *Examination of the central field between the modern village and the southern cemetery.*

So few were the results from the large clearance just described, that we decided on another method for testing the field to the east. This field occupies a position almost in the centre of the ancient town, at a point about equidistant from the east and west walls. Even had the tell been unencumbered, this would have been a point to be chosen for digging. Here we sank a series of shafts, 12 feet square and 16 feet apart, in three lines, each including four shafts, except the western line, on which there were but three, making eleven in all. These shafts were sufficiently large and sufficiently near together to make it extremely improbable that we should miss any important building. The idea was that if any such building were struck it would appear in more than one shaft, and we could then extend our digging to the spaces left between the shafts; or if a stratum of tablets appeared we could easily follow it in the same way. We thus practically exhausted the possibilities of an area 68 feet by 96 feet, which was the maximum area that could be excavated in this field, making allowance for space for depositing the earth against the enclosing cactus hedge. Rock was found at an average depth of 19 feet. Making the proper allowance for batter, we thus carefully examined over 25,000 cubic feet of soil, or about one-fifth the quantity which would have been excavated had we cleared out the whole area to the rock. The results were even more unsatisfactory than those from the western field. A few rude walls. generally of uncoursed rubble, were found at various depths, but with the exception of one late wall immediately under the surface, these were not found to extend from shaft to shaft. Signs of mud-brick walls and a rude pavement also appeared. Almost all the pottery was in fragments. The soil had been much disturbed in quite recent times, as a modern Arab coin was found at a depth of 10 feet, and many signs of filled-up pits appeared. To a depth ranging from 6 to 8 feet there was much Arab pottery intermingled with older styles. The peculiar Jewish styles were not in much evidence, the ware being chiefly pre-Israelite, including a stratum on the rock of the earliest types. In this stratum were found the extraordinarily thin flint knives and the thick scrapers for skinning animals, characteristic of the lowest city at Tell el-Ḥesy. In one of the pits we found the only example known of a jar burial, to be relegated to the early pre-Israelite period. (*See* Pl. 82, and descriptions, pp. 151, 152.)

(5) *Investigation of an outlying portion of Blanche-Garde, etc., etc.*

The excavation of Blanche-Garde was rendered impossible by the wely and the modern cemetery which now occupy the site. Certain portions of this fortress appear to have been above ground at the time of the visit of M. Rey, who gives a sketch plan of the remains.* The wely had apparently not been built at the time of his visit. According to him the building was about

* "Études sur les monuments de l'architecture militaire des Croisés en Syrie et dans l'Île de Chypre." Par G. Rey. Paris, 1872. Pp. 123–5.

60 mètres square. At two angles he recognized the remains of towers, one of which appears to be on the site now occupied by the wely. In 1875 Conder found the wely, but says :* —"Of this fortress nothing remains but the rock-scarps, which are dimly traceable." We have observed the ruined top of a wall of well-squared masonry about 8 feet thick, extending north from under the east wall of the wely. This is probably a portion of one of Rey's towers. The other tower, with the rest of the building, may have been pulled down to form the wely, the interior of which is lined with drafted stones. These do not show the diagonal chiselling characteristic of the Crusaders, but they may have been taken by them from older buildings. According to the people, the wely was built some thirty years ago. Burials are still made on this site, and the surface is constantly changing ; hence the wall observed by us may have been underground at the time of Conder's visit. Rey also observed traces of an outer enclosure. The portion seen by him appears to have disappeared, but the remains now uncovered at X seem to be in line with the former, and may be a part of the same enclosure.

The point X (Pl. 7) is at an angle of the field where we sank the eleven large shafts. Here we found the ruins of a tower cropping out about 4 feet above the surface, and trenched around on three sides by the fellaḥîn, who had removed the facing stones for building purposes. Two, though dislodged, had not been taken away. They have flat faces, with shallow drafts, 2·75 inches wide ; these are dressed with a pick, which forms long narrow strokes, somewhat curved, and arranged in groups of parallel cuts; the rough inner surfaces show marks of the comb-pick. Only one of these stones is whole, measuring 37 inches long by 20 inches high ; they had been set in mortar, as shown by bits still clinging to the inner surfaces, and mortar was found in the rough core of the wall. Hoping to find some lower courses undisturbed, we sank a shaft at the north-east angle, finding two courses of plain-faced stones, 16 and 18 inches in height respectively, the lower being a footing resting on foundation work of rude, unfaced rubble. The stones of the upper courses are roughly dressed with the comb-pick. Owing to its ruined condition, the dimensions of the tower could not be absolutely ascertained, but the trenches dug for removing the facing-stones permitted us to gauge the extent of the face at 25 feet, which must be correct within a foot or two. In this same way the sides were measured to the point where they run under the cemetery at about 21 feet. Along the face we found traces of a gate, 10 feet wide, *i.e.*, a door-socket with jamb, rude sill, and signs of a second jamb. In a shaft sunk a few feet from the corner of the tower, rock was found at 20 feet below the surface. The level of the sill is practically that of the adjacent part of the field, and 7 feet above the top of the foundation work below the footing found in the shaft at the angle. We thus have two limits between which the ground-level at the period of the tower must have lain, and for the extent of accumulation above the rock at the same period. If the door-sill indicates this ground-level, then when the tower was erected the field must have had its present level. In other words, on this hypothesis, the tower represents the latest construction at this point. If the rude foundation work represents the ground-level of the tower, then we must assume a flight of steps leading down from the gate to a depth of 7 feet. It was impossible to test this theory without removing a dense cactus hedge—an impracticable task. Militating against it is the fact that the two courses found above the rubble are roughly dressed, have no drafts, and were hence probably always under ground. Even on this theory of a lower ground-level we must assume an accumulation above the rock of 13 feet of débris ; hence in no case can this building be relegated to the earliest period.

Notwithstanding the absence of the peculiar diagonal dressing of the Crusaders and of their

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* "Tent Work in Palestine," vol. ii, p. 153 One-vol. edition, p. 76.

characteristic masons' marks, it is probable that this tower belongs to the Crusaders' period, forming a part of Blanche-Garde, which, according to Rey, extended as far east as this point. We may note here that in the courtyards of the houses of the modern village, and lying loose in the streets, are several architectural fragments. Especially to be noticed are a debased Corinthian capital (Fig. 10, No. 1), two Attic bases of common type (No. 2), a fragment of a marble column with filleted flutings, and a rather early Romanesque capital (No. 3). A later Romanesque capital, founded on the Corinthian type, and showing the eight-pointed cross of the Knights of St. John in a circle just under the abacus, is lying beside the wely on the north-east plateau. Just outside the ancient city wall is a field, south of the north-east plateau and at a considerably lower level. This field is flat, and we thought it might represent an extra-mural occupation, or possibly a cemetery. A few shafts proved the former theory to be correct, pottery being found to the rock. As this occurs at a maximum depth of 7 feet below the surface, the occupation must have been slight. Cropping out from the surface was found a roughly circular stone, and a scraping of the ground revealed five others, forming two lines running almost directly east and west. The largest is 41 inches in diameter. Careful trenching failed to reveal any others. These stones appear to be parts of two parallel alignments (Fig. 11).

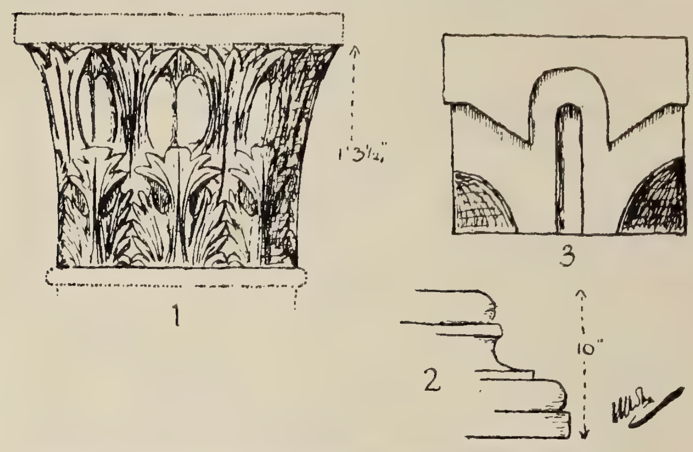


FIG. 10. ARCHITECTURAL FRAGMENTS FOUND IN THE VILLAGE.

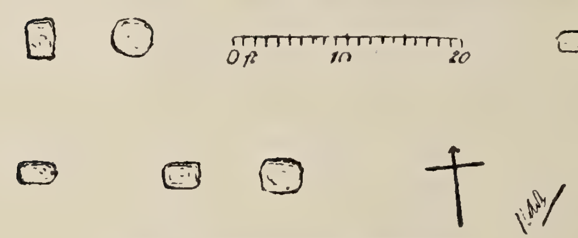


FIG. 11. REMAINS OF ALIGNMENTS.

Besides two coins, and some pottery, the only objects found that could be dated from the Crusaders' period was the signet ring, Fig. 12.

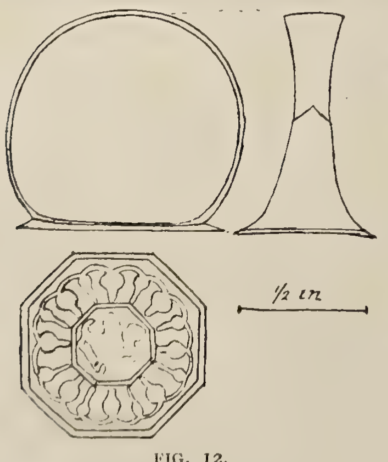


FIG. 12.
SIGNET RING OF CRUSADING PERIOD.

(6) *Examination of an ancient rubbish heap on the south wall.*

In tracing the city wall at *f* (*see* Pl. 7) we found that for a length of about 35 feet it was covered by an ancient rubbish heap, which in turn was partly buried by the modern rubbish heap. This ancient débris covered the entire breadth of the rampart, and extended a few feet in front, where it was limited by a rude wall. All the earth was passed through sieves, and a heterogeneous collection of objects was recovered. These must have been cast down at some late period when the rampart was in ruins. Some of the pottery fragments appear

to be older than the ruined wall. A detailed description of the objects is to be found in Part II under various headings, but it will be well to give a general catalogue here.

A. *Pottery*—(1) The fragments of vessels date from many periods, and are as follows: a few early pre-Israelite types; some Jewish types, including the stamped jar-handle No. 27, Pl. 56, of which a duplicate was found at Tell ej-Judeideh, and the jar-handle stamped with figure hunting a stag (No. 32, Pl. 56); fragments of early Greek ware (B.C. 750–550), and fragments of black and red figured Greek vases (B.C. 550–350). (2) Over 100 fragments, representing at least 40 different masks of the type shown in Fig. 13.



FIG. 13. OSCILLA IN TERRA-COTTA: TELL EṢ-ṢÂFI.

(3) Fragments of concave plaques of the type shown in No. 8, Pl. 70. (4) Twelve small heads, some of which appear in Fig. 14. (5) About a dozen fragments of statues of the Goddess of Fertility (No. 10, Pl. 70). (6) Three figures of men holding their beards (Fig. 53, p. 141). (7) Obscene figure of a Satyr. (8) Three rude figures of a horse and rider (Nos. 1 and 2, Pl. 70). (9) Headless figures of Astarte (Nos. 11 and 12, Pl. 70). (10) Neck of vessel in form of rude human head; probably archaic (No. 1, Pl. 67). (11) Figure of a woman with child on shoulder (No. 7, Pl. 70); duplicates were found at Tell Sandaḥannah. (12) Four small fragments of figures (Nos. 4, 5, 6 and 9, Pl. 70). (13) Small fragment, showing two figures wrestling? (No. 3, Pl. 70). (14) A bit of clay stamped with seal (Fig. 15, No. 5).



FIG. 14. HEADS OF STATUETTES: 1, 3, 4, TELL EṢ-ṢÂFI; 2, TELL SANDAḤANNAH.

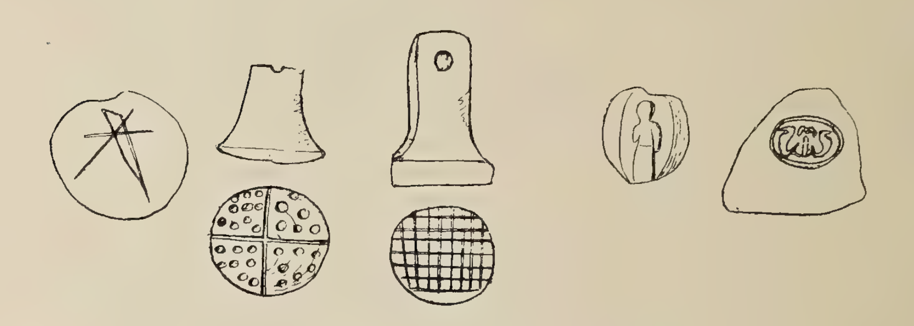


FIG. 15. CLAY SEALS: TELL ZAKARÎYA AND TELL EṢ-ṢÂFI.

B. *Stone statuettes.*—A large number of fragments of stone statuettes, none of which fitted together to form a whole figure. Representative specimens are shown on Pl. 75.

C. *Egyptian objects.*—(1) Twelve paste charms in the form of eyes (*Utchats*) of various forms and colours; (2) Six figures of Bes, in paste, ranging in size and colour; (3) Figure in black-brown paste of Isis and Horus (No. 14, Pl. 84), the upper part of the infant is broken off; (4) Small lion's head, No. 2 (amulets), Pl. 83; (5) Three broken paste figures of Sekhet (No. 10, Pl. 84); 6) Six minute paste amulets; (7) Bone scarab with bronze holder (No. 30, Pl. 83), and blue paste scarab (No. 26); (8) Bronze statuette of Sekhet (No. 11, Pl. 84), on tenon for mounting, with uræus broken off; (9) Lower half of Ushabti figure of green paste, inscribed with a portion of the chapter from the Book of the Dead, normally placed on these figures; (10) Green glass scarab, with figure of a fly (?) (No. 6, Pl. 83); blue glass scarab, showing man on horseback fighting lion; scarab of opaque white stone (No. 5, Pl. 83); jade scarab with figure of horse (No. 7, Pl. 83).

D. *Babylonian and Assyrian objects.*—(1) Four conical Babylonian seals (Fig. 16) of stone, one of which shows the priest before the altar, and another the priest before the sacred tree (*see* p. 153). The fourth was uninscribed and is not drawn; (2) Five fragments of a limestone stele with Assyrian figures and markings (Fig. 17).

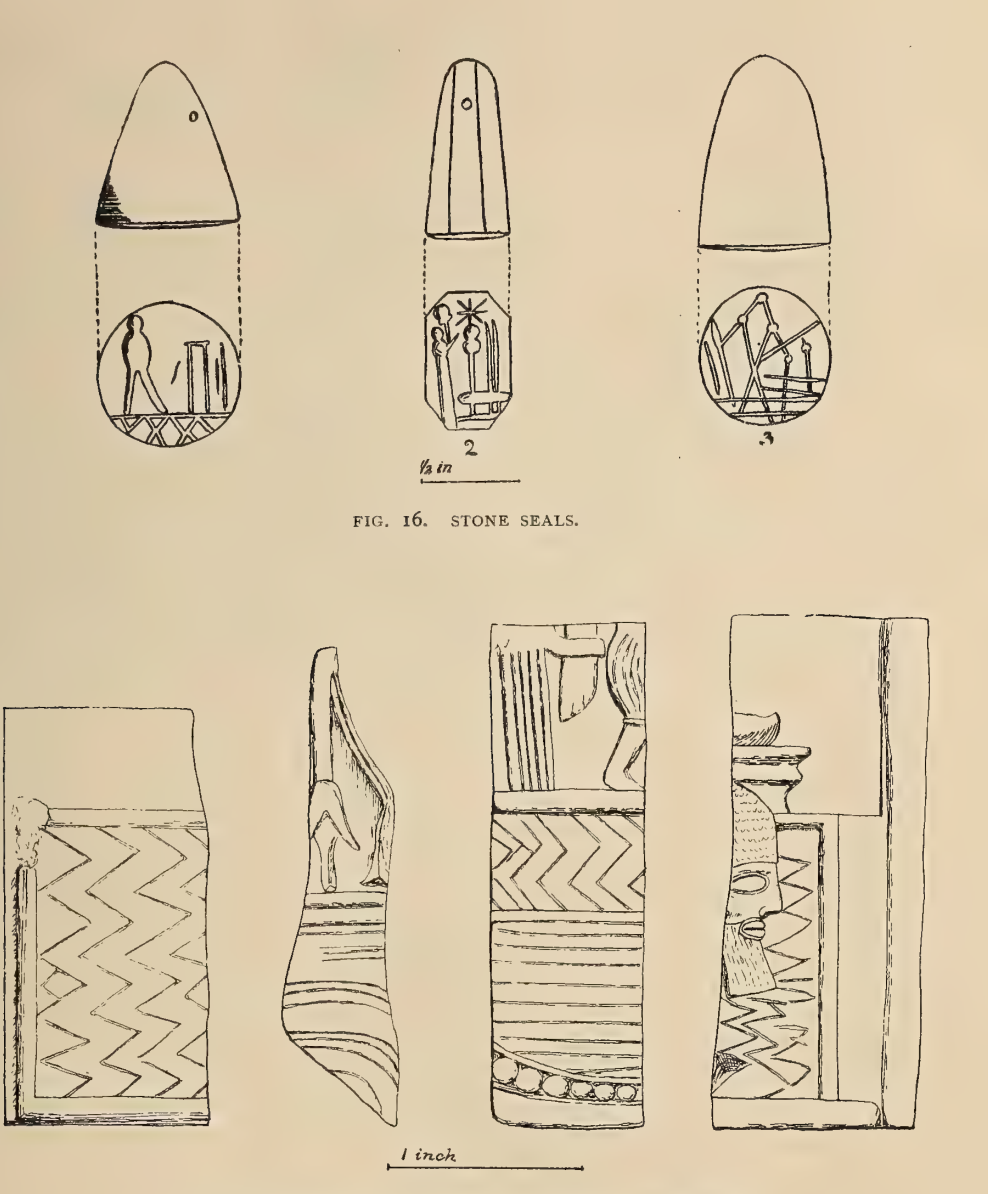


FIG. 16. STONE SEALS.

FIG. 17. FRAGMENTS OF AN ASSYRIAN STELE: TELL EṢ-ṢÂFI.*

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* The fifth fragment bears merely a small portion of the raised margin of the slab.

E. Over 300 *beads* in carnelian, amethyst, agate, coral, blue and white paste, etc. Some of these are reproduced in Fig. 18.



FIG. 18. CARNELIAN AND AGATE BEADS.

G. *Miscellaneous.*—(1) Three grotesque amulets of blue glass with yellow edges, showing a head with prominent ears (Fig. 19); similar black fragment with white edges; grotesque seated figure in blue glass, obscene in character; (2) Two wooden objects of unknown use (Nos. 16, 17, Pl. 84); (3) One small pear-shaped weight; (4) A stone mould for casting a bell with clappers (Fig. 20); (5) Two bone objects (Nos. 7 and 9, Pl. 77).

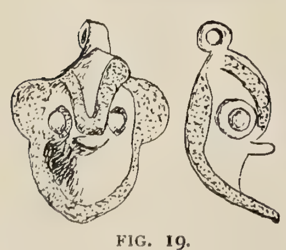


FIG. 19.
GROTESQUE GLASS AMULET.

The objects common at Tell Zakarîya, in stone, iron, bronze, bone, and paste (small amulets) were found also in the large clearances at Tell eṣ-Ṣâfi, hence we need here notice only the most interesting, such as the marble jar No. 1, Pl. 73, found below the "temple" level; a very small fragment of an Egyptian stele, Fig. 21, and the incense-boat in bone, No. 10, Pl. 77. In regard to pottery, we notice the curious absence of the thick-based lamps (Nos. 4 and 5, Pl. 66) common in the Jewish layers at other sites, and the peculiar richness and variety of the late pre Israelite decorated ware (Pls. 36–42), of which the jar figured on Pl. 44 is a beautiful example.

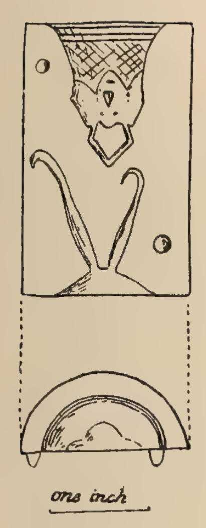
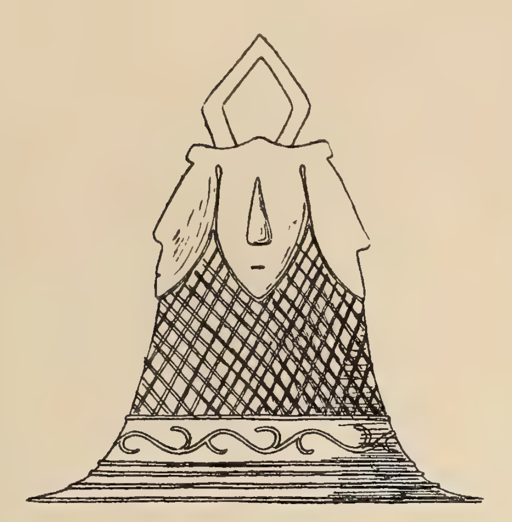




FIG. 29. MOULD FOR CASTING BELL.



ENLARGED SKETCH OF BELL.



FIG. 21. FRAGMENT OF EGYPTIAN STELE: TELL EṢ-ṢÂFI.

The coins found were as follows:—two Ptolemaic coins; one coin of some Roman colony, impossible to identify further; one badly preserved Kufic coin; and two Crusaders' coins of thin silver, with Maltese cross.

F. J. B.

CHAPTER IV.

THE EXCAVATIONS AT TELL EJ-JUDEIDEH.

Tell ej-Judeideh is the southernmost hill in the chain running N.N.E. from Wâdy Beit Jibrîn, and terminating at the north in Tell Zakarîya. From the summit, 1,297 feet above sea level, the ground drops somewhat gently to the south, more abruptly to the east, and still more sharply to the west. At the north it is separated from the next summit by a slight dip, forming a lofty pass. Thus from all points but the north it is a prominent land-mark. The summit may be divided into two parts: the southern, which runs almost directly north and south, and the northern, which trends towards the north-east (Fig. 22). Excavations were confined to the southern portion, where the accumulation is deepest, and only this end of the hill is shown on Pl. 10. It is about 800 feet long, and was during a late period enclosed by a city wall. At the south is a slight mound due to the destruction of the south gate. A similar mound in the centre covers the remains of a Roman villa. To the south of this the débris is slight, ranging from 1 foot to 6½ feet; to the north the débris gradually increases in depth from 10 feet near the villa to 20 feet at the base of a third mound, which is largely due to the destruction of the north gate. The present surface is fairly level, the rise between the south and north mounds being only 17 feet, or about 1 in 40. On the plan the surface levels are marked in feet and decimals of feet, with reference to a conventional zero point on the slope outside the south gate. In general, the summit has a distinct edge, marking the line of wall.

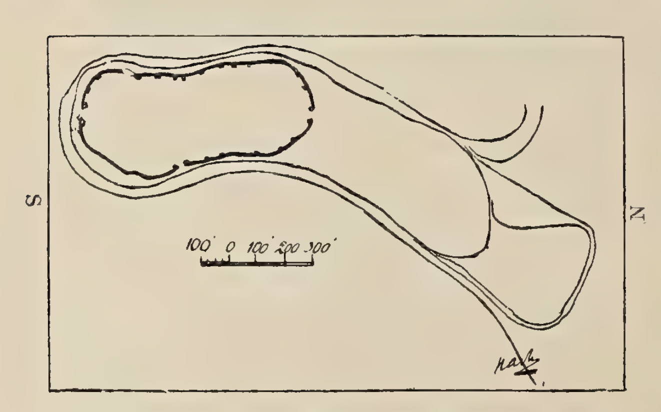


FIG. 22. SUMMIT OF TELL EJ-JUDEIDEH, SHOWING POSITION OF WALLED PORTION OF ACCUMULATION.

The northern portion of the hill (not included in Pl. 10) trends north-east from the north base of the north mound for some 1,100 feet, and shows a maximum accumulation of 5 feet of débris with various out-crops of rock. This part is strewn with Jewish and pre-Israelite pottery, which is also found on the surface of the walled-in portion, intermingled, however, with later styles. The Jewish and earlier towns thus extended over the entire summit, which is about 1,900 feet long, but the distribution of débris shows that the main occupation during these periods was confined to an area only 400 feet long from the centre of what was the later walled town to the spot occupied by its north gate.

The excavations at Tell ej-Judeideh fall under three heads :—

(1) *Tracing the city wall* (*see* Pl. 10).

Before we began to dig, the line of the wall could be traced almost entirely round the edge of the tell. In general only one course of stones appeared, but in several places from two to three courses cropped up above the surface of the slope. The outlines of two towers were visible, and in other cases lines of stone *in situ*, or sometimes a single stone, gave us a hint as to where to dig for others. The wall follows the natural contour of the hill, the face being slightly curved in many places, while near the north and south gates the curve is very pronounced.

The excavations established the following facts :—The wall is built of rude rubble, brought to courses above the surface, and laid without mortar. The stones were roughly dressed, but much weathering has obliterated all tool marks, except at the towers to be noticed later. The wall has a uniform thickness of 10 feet (along its higher portion), except at the places where it is strengthened by inner buttresses of solid masonry, projecting inwards. Of these sixteen were found and are marked on the plan. An exhaustive search proved that no traces of others remain. It appears probable, however, that similar buttresses must have existed in the spaces between A and B, C and D, I and K, and perhaps between E and F, and G and H. Besides these solid buttresses, eight towers were found, flanking the four gates. Of the towers and buttresses, some are roughly bonded into the main wall, others are without bond. They appear to have been laid out without any special regard for spacing. Omitting the spaces just mentioned, as well as the openings for the gateways between the flanking towers, the intermediate spaces are as follows :—Six range from 35 to 37 feet; five range from 40 to 44 feet; one is $46\frac{1}{2}$ feet; three range from 50 to 52 feet. With the exception of the tower flanking the south gate to the east, which is 34 feet long, the faces range in length from 13 feet 6 inches to 15 feet 2 inches; the standard measurement appears to be 14 feet, as seventeen out of the twenty-three measure within 3 inches of this dimension, eight being 14 feet exactly. The projections of the solid buttresses range from 3 feet 3 inches to 4 feet 11 inches. The chambers in the towers flanking the gates measure about 6 feet by 7 feet, with walls from 3 to 4 feet thick; exception should be made of the long tower at the south gate, which contains a chamber 28 feet long.

The south gate (*see* Pl. 11) is fairly well preserved; the east jamb stands to a height of about 7 feet, its ruined top being only 1 foot under the surface. The masonry is better squared and dressed than that of the main wall, the comb-pick dressing having been used. The door-sill consists of several slabs of stones, 14 inches wide; the gate was double, as shown by the central

bolt-holes, as well as by the sockets for the door-posts. The opening is 10 feet wide. Search for steps leading outward from the gate was unsuccessful. A pavement was found inside the gate. At about the level of this pavement there is an entrance to the small flanking tower at the west. No entrance was found to the long tower to the east; this tower, however, contains a chamber, 28 feet long by 7 feet broad; it is approached by a flight of steps (*see* elevation, *gh*), which is ruined 14 inches below the top of the remains of the tower; hence it appears that this tower had been ruined below the level of its flooring. At the base of the steps was found *in situ* a very small portion of mosaic, in white and red tesseræ, 1 inch square. The exterior wall of the tower is at this point covered with plaster, held in place by an inner coating of pot-sherds, showing the broad ribbing of Roman or Byzantine times. The pottery found in connexion with the excavation of all the gates showed these same types.

The east gate had been blocked up, showing that at some period after its construction this entrance was no longer used. The city wall does not round inwards towards the gate, as in the case of the north and south gateways. The gateway was double; the opening is 10 feet 3 inches long. As the entrances to the flanking towers are 2 feet 8 inches above the level of the sill of the gateway, these towers must have been approached by steps from the pavement within the gate, though no steps were found. The door jambs consist of rude rubble, in contrast to the better masonry at the north and south gates. The north gate is very well preserved, the north jambs standing to a height of about 5 feet, their ruined tops being immediately under the surface. The jambs are dressed with a chisel pick, making long strokes; no mortar appears to have been used. The east jamb is eaten away by a series of furrows, plainly caused by the overlapping of iron sheets, with which the gate must have been plated; this jamb also contains a socket for the insertion of a transverse bolt for securing the gate. The sill is 14 inches wide; the gate-opening measures 8 feet 7 inches, or some 18 inches less than the north and east gates. No chambers were found in the flanking towers, which consequently are drawn as though solid, but we have proved that the entrance to the large tower at the south gate was several feet higher than the sill, hence the towers in question may be ruined below the chamber-levels, though no steps were found. Unsuccessful search was made for steps leading down the very steep slope to the north.

A worked stone (Fig. 23) was found on the surface of the north mound above the gate. It is about 28 inches long, with a ½-inch sinking in the centre. The curve at the bottom suggests that it was the keystone of a round arch over the doorway. It appears to have been designed for an inscription, but as the surface is perfectly smooth with no signs of lettering, nor of holes for the insertion of a metal plate, the intention was apparently abandoned. Similar stones, some inscribed, some uninscribed, are found over doors in the Byzantine ruins of Northern Syria.

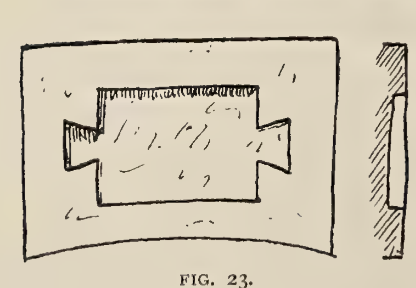


FIG. 23.
WORKED STONE: TELL EJ-JUDEIDEH.

The two hollow towers, only 14 feet apart, at the west, directly opposite the two towers flanking the east gate, suggest that a gateway once existed at this point. The level to which the wall is ruined relative to the tower entrances admits of the supposition that the door-sill has been removed. There may possibly have been a fifth entrance at the point K, as two large slabs of stone were found there on the line of the city wall.

We have proved that the city wall was built after most of the débris now found on the tell had accumulated. Three shafts were sunk on the slope along its outside face, and the results may be seen in Pl. 11, above the heading "Specimens of Masonry." Specimen i shows two

courses of rude rubble above the surface, each course about 18 inches high ; and one course of rude rubble below it resting on 6 feet of small uncoursed rubble, between which and the rock are 3 feet of débris. Specimen ii shows a cross-section of the wall at another point. Here the outside face stands for 7 feet below the present surface, the lower $2\frac{1}{2}$ feet being a footing, which rests on $9\frac{1}{2}$ feet of débris. The wall here, as at other places, is 10 feet thick, but the inner half consists merely of one course of stones resting on the surface, between which and the rock there must be 15 feet of débris. In a trench 135 feet long and about 4 feet deep the inside face was seen at many points to rest on débris. Specimen iii shows three courses of rubble from 12 to 22 inches in height, above the surface, resting on 7 feet of small uncoursed rubble, between which and the rock are 8 feet of débris. Thus we find the outside face built on an accumulation above the rock ranging from 3 to $9\frac{1}{2}$ feet. The ground-line at the time of building appears to have been the line between the coursed and the uncoursed rubble, which is practically flush with the slope, not far below the general level of the tell summit. The accumulation of about 5 feet over the door-sills of the gateways is due to the destruction of the gates themselves and of the adjacent towers. Thus the city wall belongs to the latest occupation of the tell represented by the highest 4 feet of débris, which contained Greek and Roman pottery. It is probably contemporaneous with the villa found in the centre of the town and with the many houses immediately under the surface. At two different points an examination was conducted to ascertain whether an earlier wall was to be found underlying the surface wall, or whether such a wall existed in a line outside or inside that of the surface wall, but in each case the negative was proved.

(2) *Tracing of the villa in the centre of the tell* (*see* Pls. 12, 13, 14).

A low mound in the centre of the plateau, crossed by lines of stone *in situ*, plainly indicated a large building. Following the surface clues, we soon recovered the outlines of a building directed to the cardinal points, square in shape, with a side of 45 feet 3 inches, outside measurement. The outside walls range in breadth from 3 feet to 3 feet 7 inches, and consist mainly of rubble laid in courses about 18 inches high; at the angles the stones are better squared and dressed, some of them being flush-drafted or vermiculated, with the centres roughly pocked, while the drafts are chiselled. The building is divided into ten rooms by cross walls, ranging from 1 foot $9\frac{1}{2}$ inches to 3 feet in thickness. The masonry above the door consists of thin slabs of "howwar" (soft limestone), averaging about 8 inches in height and 18 inches in length, dressed diagonally with a very broad chisel. Rooms 1, 2, and 6 were cleared out, the débris consisting mainly of fallen stones with scarcely any pottery. The floorings are of mud mixed with straw and small pebbles. There was no indication that this was meant to form a matrix for a mosaic, and no loose *tesseræ* were found. On the walls, which stand to a maximum height of 5 feet above the flooring, were signs of plaster, consisting of a paste formed of water and unslaked "howwar." No signs of windows appeared. The building does not rest on the rock, but on 4 feet of débris, the foundations being sunk some 5 feet below the level of the floorings. No traces of an outside door remain. The outside walls are preserved above the floor-level at all points except at the S.W. corner of room 10, which is obviously no place for a door, and at room 5, which must have been the point of entrance. As the door opening could have been barely 4 feet wide, it was clear that the capitals and bases found in the débris formed no part of this entrance, and search for an extension of the system towards the east was begun.

The results of this search are shown on Pl. 12. The small entrance was found to lead to a court or atrium, in the centre of which was a pool originally surrounded by eight columns. Six bases were found *in situ,* and the position of the other two was sufficiently indicated. The

intercolumnar spaces are not equal, and the axes of the two colonnades are two degrees off the right angle. The column bases are not disposed symmetrically with reference to the pool wall, as five project outwards from this, while the sixth stands on the step or seat running round the inside of the pool. It seems probable that the columns were placed with a view to a general symmetrical effect with the main lines of the building. To have placed the pool so that the sixth column should stand outside it, would have necessitated the contraction of the pool beyond the apparently required dimensions, while to have arranged it so that all the columns should rest on the step would have resulted in hiding the bases of all the columns from the point of view of one outside. Accordingly a compromise appears to have been effected. The pool walls, which show no straight lines, are covered with plaster, consisting of mortar and ashes, with minute particles of ground pottery. The plaster is in two coats, as in later times the pool was thickened and heightened by a wall which on three sides was carried out almost to the outer line of the column bases, and on the south side was built on to the step. This alteration is not indicated on the plan. An approximate restoration of the pool was attempted by building on the bases *in situ* the drums and capitals found in the débris. This restoration is shown in Fig. 24.



FIG. 24. ATRIUM AND IMPLUVIUM OF ROMAN VILLA. (Restored from fragments found on the site.)

The other component parts of the building are thus described by Mr. Macalister :—

"The remains have every appearance of being those of a Roman villa, possibly with some Greek influences in its plan, surrounded by the ruins of a settlement of small houses. The latter interfere considerably with the remains of the principal building, and obscure its details. I apprehend that the principal building antedates by a certain period its smaller neighbours, and that when they were built it was abandoned and probably partly ruined.

"In the large square hall, with a quadrilateral pond in the centre, we have, I think, evidently an atrium with its impluvium. To the south of the impluvium is a wide doorway, in which was found the base of one column. This, from its position, was most probably *in situ*; an element of doubt is admitted by the fact that it had no foundation, but the whole work is so bad that this objection is not insuperable. Here, I take it, we have the original entrance, although its position at the side rather than at the end of the atrium is singular. This wide doorway opens on a shallow apartment, which would perhaps be the ostium; there is a narrow door, not centrally placed, in its back wall. I suspect, however, that outside the columned doorway there has been a certain amount of rebuilding, and that we cannot accept the existing remains as representing the original plan. I have indicated on the plan one possible reconstruction of the outer door, suggested by two large piers on the back wall of the supposed ostium. (I may remark, once for all, that in the plan [Pl. 12] walls *blackened in* belong certainly to the building under consideration, walls *hatched* do not appear to be connected with it.) It is just possible that this shallow apartment may be the triclinium, which does not seem capable of being placed anywhere else in the plan, but I hardly think it wide enough.

"To the east are four small chambers, not easy to assign to their original purposes. They may have been store-rooms or cubicula. From their opening out of the atrium they evidently belonged to the villa. To the north the only noticeable feature is a recess between two pilasters—possibly the tablinum.

"The columns are ranged immediately at the edge of the impluvium, not set back. They have Attic bases and ugly squat capitals, differing slightly among themselves, while maintaining the same character (Pl. 13). The mouldings are 'roughed out' in the stone, and finished with a fine plaster coat: thus, the cyma recta, which appears on some, is a common roll and fillet on the stone. Traces of vermilion appear on some of the mouldings. Unfortunately in a work so rough the system of proportion adopted cannot easily be recovered with exactitude, and there is no clue to the original length of the columns. (On Pl. 12 it has been taken conventionally at 10 feet.) The columns are built in drums, dowelled together with square dowels—probably of stone, as no sign of oxidation appears on the stones. As usual, the drums were chiselled out roughly, made to fit exactly by being rotated end to end backwards and forwards, and finally were smoothed into shape with the comb. Two unfinished drums were found illustrating these processes. Neither had been combed, and from one, the ears, left for convenience of grasping for rotating the drum, had not been chiselled off. Many of the drums are signed with a mark, consisting of a letter, Greek or Roman (L is the only exclusively Roman letter), with or without one or more vertical strokes after it (Pl. 14). The attractive theory that the letters were denotations of the individual columns, and the strokes represented the numerical order of the drums in each, was negatived by trial, it being found that drums consecutively numbered do not fit together. We are, therefore, obliged to fall back on considering the letters as masons' marks, aud the strokes as indicating the number of the drums executed by each.

"The only indication of the character of the roofing consists of a square mortice cut out of opposite sides of the abacus of all capitals that can be referred to the atrium colonnade. That this mortice—which measures 5 inches to $5\frac{1}{2}$ inches across—is intended for the reception of roof timbers, and not for the framing of the compluvium, is shown by the fact that invariably it occupies opposite sides of the capital. Were the latter the correct theory, the corner columns would show the mortice on adjacent sides.

"The western colonnade of the atrium is entirely occupied by a faux, terminating at each end in external doors. These, no doubt, led to outhouses, and probably at least one led to a peristyle court or some other construction, the existence of which is postulated by capitals and

bases, in design different from those belonging to the atrium, found lying about in various places. All such external structures have, however, disappeared, and their sites are occupied by small chambers and houses, between which and the main building it is impossible to trace a radical connexion. The floor of the faux is paved with mud beaten down. It is raised 2 feet above the level of the floor of the atrium, and screened off from it at the southern end by a dwarf wall, marked XV in the plan. The extension of the faux to the south, beyond the breadth of the atrium, will be noticed.

"In the centre of the west wall of the faux (though not centrally placed as viewed from the atrium) is a comparatively narrow doorway, giving access to a square building with thick walls. There are ten apartments in this building, the plan of which is perfectly straightforward and, except for the slight deflection of one wall, admirably regular. The central apartment, having no means of lighting except from above, was in all probability an open court by which light and air were admitted to the other apartments of the system. The position in the plan, the extra strength of the walls, the apparent absence of external windows (thus securing the complete privacy of this part of the building), forcibly suggest that we have here a gynæconitis arranged round its own central court, as was the case in Greek houses.

"Nothing whatever was found to fix an exact date for the building."

(3) *Opening of six large clearance pits in the north half of the portion of the tell now enclosed by a city wall.*

The accumulation over this portion of the tell is greater than at any other part, ranging in depth from 10 to 20 feet. Within this area we made the six clearances marked on the plan (Pl. 10), placing them at such intervals as appeared to reduce the possibility of our missing any important building, and to increase the chances of our striking an ancient rubbish heap which might contain valuable objects. In every case but No. 5 we cleared to the rock, or to the virgin soil, leaving the lower walls *in situ*. In No. 5 we exposed the rock only over about one-third of the area. Placed side by side the pits would cover an area 120 feet long by 80 feet wide, having an average depth of 13 or 14 feet. Almost all of the soil exhumed was passed through a sieve, and each stone was examined. Thus the chief part of our time was occupied with these pits. The results can be summed up in a few words. Walls enclosing rooms, floorings, ovens, corn-pits, stone vats, etc., were found, in some cases representing four periods of construction. All the walls consist of the rudest rubble laid in mud, and there was nothing to identify any of them with an important building. Signs of conflagration were visible in many places, especially in pit 4, where, in a bed of ashes above a flooring, we recovered a quantity of Jewish types of pottery, and in pit 5, where, over the whole area, the stratum below the Jewish houses consisted of small calcined stones, whose condition was evidently the result of the destruction of stone buildings by severe fire. From the bottom of this pit we drove three tunnels along the rock under the north mound, which I had suspected might cover the remains of an Acropolis, but no such construction was found. The best preserved rooms occurred immediately under the surface. These doubtless belong to the period of the city wall, and are probably not much later than the villa, which Mr. Macalister thinks was abandoned and probably partly ruined when they were built, as they considerably interfere with its details.

Tested by the pottery, the débris is in three strata. From the surface to a depth of about four feet, Seleucidan, Rhodian, and Roman types were in evidence, mingled with earlier styles, doubtless brought to their present level

where foundations were dug for the latest buildings. Below this upper layer is a stratum, characterized mainly by Jewish types, including a number of jar handles, stamped with Hebrew names. This is superposed on a pre-Israelite stratum on the rock, containing almost exclusively the earliest ware. While a few specimens of late pre-Israelite ware were found, the absence of a distinct stratum characterized by this ware is noticeable. This leads us to conclude that Tell ej-Judeideh suffered an interruption in its history. Judged by the data available, this history may be summed up as follows:—It was occupied in very early times, deserted before the Hebrew conquest, re-occupied by the Jews during the later days of the monarchy, and finally fortified at a comparatively late period, perhaps in Roman times.

Apart from the pottery, which was especially valuable in illustrating the Jewish period, the finds were few, and in general consisted of objects common to the other sites excavated. The most interesting find in stone was a collection of objects found near the surface (*see* Pl. 74). The other stone objects included catapult balls, roof-rollers, corn-rubbers, weights, fragments of archaic mace-heads in alabaster, pounders, fragment of a draught-board, a cup, and a mortar, with pestle inside it. In bone were prickers, *styli*, and an arrow-head. In bronze the fine knife (No. 1 Pl. 80),* pins and arrow-heads. In iron, nails and arrow-heads. In paste, two scarabs and a few ordinary Egyptian amulets, such as an Utchat, and a fragment of a figure of Isis with the infant Horus. Of glass we found only a few decorated fragments. The only coin found belongs to the Constantine series.

F. J. B.

* "Sn" in the plate is an error.

CHAPTER V.

THE EXCAVATIONS AT TELL SANDAḤANNAH.

Tell Sandaḥannah (Pl. 15) is situated one mile directly south of Beit Jibrîn. Although the accumulation of débris is not great, ranging from 12 feet to 20 feet, the tell is a prominent feature in the landscape, for it covers a small natural plateau, from which several low ridges radiate. Its summit, 1,098 feet above sea-level, is roughly circular, with a diameter of about 500 feet. Extensive traces of ruins are found in the fields round the tell, especially to the north-west in the direction of Khurbet Merʿash, which is barely three-quarters of a mile away. Two preliminary shafts were sunk to the rock from the tell surface, and an examination of the pottery showed two distinct strata: the lower Jewish, the higher Seleucidan; walls of buildings belonging to the upper stratum were found immediately under the surface.

The work done at Tell Sandaḥannah falls under three heads :—

(1) *Excavation of the surface (Seleucidan) town* (Pl. 16).

Before entering into the detailed description* of the Seleucidan town, it will be well to indicate the nature and method of the excavation. The work was rendered easy by the fact that, as a rule, the ruined tops of the walls were covered with less than a foot of débris. The first day I placed ten diggers, with their basket boys, in a line east and west, just within the south line of the city wall, and directed them to dig trenches about 3 feet deep. In some cases walls were found running in a line with the trenches; in others walls were struck crossing the trench lines. At the end of two or three days we had sufficient clues to make it more economical to abandon the method of parallel trenches, and begin a systematic tracing of streets and chambers. The small size of many of the rooms rendered the disposition of the earth a difficult problem, and demanded that as little should be removed as possible. In most cases only two, or three, sides of a room were excavated, the length of the remaining side or sides being determined by the excavation of the contiguous chambers. This method allowed us to discover whether any remains of doors existed, but the majority of rooms were ruined down below the level of the door-sill, all signs of which had disappeared. On the plan are marked only such doors as were actually found. It may be noticed that in a given group of contiguous rooms perhaps only two are connected by a door. This is due either to the fact that the wall containing the door is less ruined, or that the missing

* For unimportant details, see *Quarterly Statement*, 1900, pp. 320–328.

door-sills were at higher levels. An example of two adjacent rooms at two different levels and connected by a staircase may be seen at *h*. It will be noticed that the lines of the chambers break off near the southern and western walls; this is due to the great ruin at these points, and suggests destruction by siege. This destruction appears to have been greatest at the south-west corner of the town.

The excavation of the great quadrangular building in the east part of the town gave more trouble. When the east wall of street E had been found, several long trenches were pushed eastwards from it to determine the position of houses supposed to be on the other side of the street. No such houses were found, but in the line of all the trenches were large fallen stones of quite a different character from those found before. As these indicated the presence of some important building, we determined to excavate as much of the area as might be necessary by means of a large clearance. By this method the double western wing of the building was determined. From a point near the south-west corner a tunnel was driven eastwards, along the foundations of the south wall, under the fallen stones. As the ground slopes towards the east, we stopped the tunnel at a distance of 70 feet, and opening up from above, were enabled to trace the rest of the south wall to the south-east angle in an open trench, thus proving the identity of the east wall with the city wall itself. The only point left undetermined was whether the south wing was further subdivided into chambers.

We may now go into the details of the town excavated. Though four-sided, it is by no means square. Its greatest length east and west is about 520 feet, and its greatest breadth north and south is about 500 feet. It thus covers barely 6 acres of ground. It is surrounded by two walls. The inner wall is found either at the edge of the tell or a few feet down the slope. The wall has been drawn at a uniform thickness of 5 feet, as this is the average thickness at points on the north side where it is preserved above the level of door-sills of abutting houses, and along the east side where the ground level is determined by the gate. At two points on the north side we proved that it is thickened on the inside face by offsets below the ascertained ground level, bringing the thickness of the foundations to about 8 feet in one case and to about 10 feet in the other. An offset was also found at the east side. At the south side the thickness of the portion of wall remaining is 11 feet, and on the west side it ranges between 8 and 9 feet. As the masonry is rough, we may assume that only the broad foundations remain. These consist of large and small roughly-coursed rubble, laid in mud, resting on débris at a depth of only 4 feet below the present surface. Some of the towers are built of thin, brick-like blocks of soft limestone, dressed with a broad chisel, often used diagonally;* this is the characteristic building material of the town. It is found in the part of the north wall between the north-west tower and the offset which marks the position of an internal tower. The stones average about 21 inches in length, 6 inches in height, and 11 inches in thickness, the courses being laid in English bond, that is, a course of stretchers alternating with a course of headers. The internal tower is of irregular shape, and probably contained small chambers at different levels, though only one remains; the part of the tower blackened in was found solid, and represents mere foundation work. Eastwards from this point to the north-east tower, and southwards from this tower to the gate, the masonry consists of large stones, set in mud, with wide joints. These stones are laid in English bond: they are roughly flaked, with no distinct dressing, though in some cases there has been a rude attempt to form a boss and margin. From the gate to the south-east tower the wall has been removed in recent times for building the house of the chief sheikh in Beit Jibrîn, but the line may be inferred from

* This dressing must not be confused with the fine diagonal cross-chiselling of the Crusaders. It was found on similar "bricks" built about the doors of the villa at Tell ej-Judeideh.

the direction of the great trench which is still open. According to the fellahin who saw it destroyed, it consisted of large stones similar to those just described. Another break in the wall occurs near the south-west tower, where possibly a gate may once have existed, as the slope of the hill is here favourable to an approach. While searching for a clue at this point, we found a hoard of tablets, and the earth removed during the excavation was heaped up along the supposed line of wall. Another break occurs near the north-west tower. This appears to have been a breach left open during the last years of the town, as remains of house-wallings run down the slope, crossing the supposed line. The north-west tower must have been a lofty and imposing construction, as its ground level runs far down the slope. It is built of limestone "bricks" on a foundation of larger stones. The wall is again entirely ruined at the point where it must have made a junction with the north-east tower. This tower is also much ruined, but its face and south-east side remain. It is built of limestone "bricks."

The outer wall (hatched on plan) is further down the slope. It was traced along the entire south side of the city, pieces were found at the west, and a section, 140 feet long, was excavated at the east,—sufficient to prove that it encircles the hill and to show its relation to the inner line. In places the space between the two walls is barely 15 feet, while in two instances the towers of the two systems touch each other. That the two walls are of the same period is proved by the fact that the face of one of the towers of the inner line is extended beyond the place for the true corner to bond into the outer line. It seems probable that the outer wall merely served the purpose of a low revetment to strengthen the upper wall, which rested on débris. The outer wall also rests on débris. Its masonry shows the large and small rubble of the upper line, as well as the limestone "bricks," but the large well-squared stones are wanting, and in general the construction is inferior. It is about 6 feet thick.

The approach to the city is from the east, where a gate opens directly into the quadrangular building. As the gate is ruined down to the level of the outer sill, and as it had been blocked up, it might have escaped us had not the position appeared to have been the most favourable for an entrance to the city. My suspicions were aroused by a peculiar feature in the supposed ruined top of the wall, which showed an inner course an inch or two higher than the facing course. A careful brushing of the latter revealed marks of foot-wear, proving it to be a door-sill, and removing the inner course, I found this to be merely a blocking up of the gate. On the outside the gate is protected by a small tower, projecting 12 feet 8 inches from the line of wall, and having a face 17 feet in length (*see* Pl. 17). Its face and west side are ruined down below the level of the door-sill, but as the north side would barely give space for a gate of equal width, we may assume the entrance to have been in the east side. This tower rises from a platform, 35 feet wide, protected by a revetment, consisting of single slabs of stones sloped against the débris of which the platform is composed. The face of the revetment is much ruined, and though search was made for steps leading to it up the slope, none were found. The gate has an overall opening of 9 feet. The sockets for the door-posts were filled with lead. Though the tower before the gate and the revetted platform do not bond into the main wall, I see no reason to assume that they do not belong to the period of the gate, as lack of bond is to be observed in the town in parts of the same construction. Within the gate is a stone pavement.

The method of excavating the large quadrangular building, with one open side, has been touched upon, and we may now describe its nature. Its east wall coincides with the city wall. At the level of the pavements discovered within rooms of the western chambers, the walls are about 5 feet thick, but the foundations are more massive, attaining in places a thickness of $7\frac{1}{2}$ feet. At one point these are seen to rest on the rock. It was not ascertained whether the east wall rests on the rock or not. The east wing contains six chambers, having a breadth of about 17 feet, and ranging in length from about 8 feet to about 35 feet. Against the one cross-wall,

discovered in the south wing, was found a built water-tank. The west wing is double, having two lines of chambers; the western line contains six chambers, with a breadth of about 13 feet, ranging in length from about 13½ feet to about 18½ feet. The eastern line has three chambers, the largest of which measures 55 feet by 17 feet. Portions of stone pavements are preserved in several of the rooms, but as the adjacent walls are ruined down to their level, we found no signs of doors connecting the chambers with each other or with the open court. The masonry *in situ* is similar in size and character to the part of the city wall described above west of the north-east tower. Among the débris covering the foundations were found still larger stones, ranging from 3 feet by 3 feet 4 inches to 3 feet 5 inches by 3 feet 6 inches. A small building with lighter walls was found to extend within the court at its north opening. We are unable to speak positively as to the purpose and use of this quadrangular construction. Its size, the thickness of its walls as compared to the rest of the town, and the regular disposition of its chambers, prove it to have been some sort of a public building. Clearly it is not a temple. The facts that its east wall is coincident with the city wall, and that the only discovered entrance to the town is through it, suggest that it formed part of the fortifications, possibly the barracks.

Turning now to the main portion of the town, we notice that this is in general built of soft limestone "bricks" of the same character and shape as found at points in the city wall, but smaller in size. This masonry is set with wide joints and laid in mud. Occasionally we find masonry of larger, harder stones, chisel-picked and laid in mud, 18 inches in height. The walls have an almost uniform thickness of 30 inches. The town is roughly divided into blocks by streets. The most important is street A, running east and west for a distance of 350 feet from the "barracks" to the houses along the west wall. It is paved in places with rude blocks of soft limestone, and has a maximum breadth of 20 feet. Several of the other streets are paved. Opening out of street A to the north we have, first, street B, 7 feet to 10 feet wide, which runs straight for some 65 feet, and then turns east for about the same distance, terminating in a *cul-de-sac;* secondly, the short street Γ, of irregular width, also terminating in a *cul-de-sac;* and, thirdly, street Δ, from 7 feet to 18 feet wide, and over 160 feet long, which does not extend to the city wall. The pavement is preserved only in some places; two of these occur within a short distance, and as they differ in level by some 3 feet, we assume that the street must have been stepped down. Opening from street A to the south we find the narrow street E, which bends round the "barracks," and streets Z and H, which with streets A and Θ, enclose what appears to be the most important block of the town. This block, which, roughly speaking, measures about 140 feet square, shows signs of rebuilding, especially at the south side, and of adaptation to public uses. Immediately under the ground level of the "court" and "paved court" are found foundations of houses, which appear to have been destroyed when the block was unified, so to speak. In its north-west corner we find the court *a*, surrounded by eight rooms, which may have constituted the private apartments. The large rectangular "court" (50 feet by 62 feet) is partly surrounded by a passage, which appears to have been divided into rooms in later times by the walls hatched on the plan. At the north this passage is separated from the "paved court" by still another passage. These courts may have been places of public assembly. The rooms at the south-western portion of the block may have been devoted to government offices.

Examination of the other blocks will show how these may be subdivided into houses, lighted not only from the street but from open courts within. For example *b* appears to be an open court, surrounded on the west, north, and east by chambers, and touching on the south the house whose central court is *c*. It will be noticed that very few of the rooms are perfectly rectangular, while many are of very awkward shape. This fact taken in connexion with the nature of the excavation makes any attempt to deduce the standard of length futile. Attention should be called to

the number of chambers barely 3 feet wide, though enclosed by walls over 2 feet thick. These appear to be closets. Chamber *g* is a raised platform, with steps, like a "mustaba" in an ordinary Arab house; *j* is also a mustaba. Chamber *h* is solidly paved with stone slabs, from which a stairway ascends to the chamber to the west. A similar stairway may be seen in the court *l*. The small circles seen in many of the chambers represent pit ovens. Portions of small drains with stone covers are found at various points such as between chambers *p* and *q*, but the drainage system could not be examined in detail without unnecessary vandalism. The house *k—k*, opening on to street Θ, is shown in detail on Pl. 17. Our attention was first called to it as a separate house by the curious thickening of the street wall, along a length of 59 feet, by a rubble addition faced with plaster, sloping towards the wall, with which it makes an angle of 7 degrees (*see* Section *g—h*). This addition rounds off at the two ends as well as towards the two jambs of the door, forming the entrance to the street. It is ruined at a height of 3 feet from its base; on the assumption that it was carried up further, the point where the sloping face would meet the main wall would be 8 feet from its base. The house is quite ruined towards the south, but the part remaining is divided into several chambers. Such doors as were actually found are indicated, but these probably are not all the doors that once existed, as some of the walls are ruined down to a couple of inches above the ground level. The house contains two platforms like the modern "mustabas." Several of the floors are covered with plaster. The platform to the right is cut into by a staircase leading down into a small vaulted cistern. Steps and walls are covered with plaster in two coats. The treads of the steps have very varying breadths.* One corner of the chamber over the vault is partitioned off by a rudely-built line of stones, behind which we found a pile of ashes. Three kinds of vats occur: No. 1 is built into the corner of a chamber, the sides being plastered; No. 2 is hewn out of a large stone resting on the floor, and supported on one side by a dwarf wall; No. 3 is a circular sinking in the floor lined with plaster, and covered in by a disc of stone. In the same room with vat No. 2 is a fireplace. Chamber *m* is also shown in detail on Pl. 17. Its walls were thickened to admit of a vault, which contracted its original dimensions and blocked up the cupboard-like niches in the wall opposite the door. It is probable that the vault was built to carry an upper story when the house was enlarged, and hence does not represent the roof of the building. As to the roofing of the houses in general, Mr. Macalister points out that the walls are not thick enough to carry a vault, and hence that they were probably roofed with boards or rushes covered with clay in the manner of modern fellah dwellings. The absence of any building resembling a temple or a synagogue is curious.

Several architectural fragments, ornamental and constructional, were found in different parts of the city. A few of these, such as a triglyph built into the jamb of a door opening on to street H, were re-used, but not one was found in its original position, and there is no evidence in the existing remains of buildings to indicate the original position of any of them. There is, for instance, no trace of a colonnade, and such columns as existed must have stood upon dwarf walls, now ruined below the level of their bases. These fragments are shown in Pls. 18 and 19. The following catalogue has been drawn up by Mr. Macalister.

Pl. 18. No. 1.—Conical object in clunch with circular head, fluted, use unknown. Length, 1 foot 7 inches. No. 2.—Small object of unknown use. It is shaped like a corner

* A similar cistern, which has also been vaulted, occurs at *n*, and is enlarged on Pl. 17. Many such stepped cisterns were found by me at Jerusalem.

capital of the Ionic order, with three sides; on the top is a circular depression, from which channels run along the projecting angles. The ornamentation is similar on the three sides, except that the little circle near the base of the central flower is once replaced by a lozenge. In the base, which is circular, is a cylindrical depression, 1 inch deep, indicated by dots in the plate. No. 3.—Capital of an anta, Ionic order, much debased. Dimensions, 2 feet 2½ inches by 1 foot 3 inches by 10 inches. Fig. *a*, face; *b*, side. No. 4.—Drum of clunch, fluted, with cup-shaped hollow at top and bottom, rude base, and roll-moulding near top. At one point in the middle the fluting is interrupted, and an Ω with a curved line over it is cut. Height, 1 foot. No. 5.—Block of stone, 1 foot 6 inches long, 8 inches high, with two depressions in the top, each with a small subsidiary depression in the middle. Fig. *a*, half elevation of top surface; *b*, elevation of side, with depressions dotted in. No. 6.—Circular vessel, with a channel running round the rim, from which three small drains open into the central receptacle. Diameter, 1 foot 4 inches; height, 7 inches; diameter of central receptacle, 6½ inches; depth, 5 inches. Use unknown. Fig. *a*, section; *b*, elevation of top. No. 7.—Table-leg (?) or stand with similar purpose, square at the top and bottom, round in the middle. Height, 1 foot 6½ inches; breadth, 8½ inches at one end, 4½ inches at the other. No. 8.—Similar object, 1 foot long, 3 inches across at each end. Section throughout square with chamfered arrises. No. 9.—Slab of clunch, 3 feet 9 inches by 1 foot 2 inches by 4 inches, ornamented on two adjacent edges with circles and frets. The other edges are plain, suggesting that this may have been a shelf standing in the corner of a room, butted against (perhaps let into) the walls at its plain edges, and probably supported by a stand similar to No. 7 or 8. A few letters of an illegible graffito remain on the longer edge, and are shown in the plate. No. 10.—Base of an anta (rectangular on plan). Length, 1 foot 4 inches; height, 6 inches.

Pl. 19. No. 1.—Dressed stone, apparently for the jamb of a door. No. 2.—Small column, plain square capital and base. In the centre of the top of the capital is a square hole 5 inches square, 2¼ inches deep. Total height, 3 feet. No. 3.—Small bowl for cooking, with four ear-handles and tripod foot. No. 4.—Fragment of a column, plain round disc capital (or base ?), on the free surface of which are some marks faintly scratched. Three grooves (only) on the side of the column: otherwise unfluted. Total height, 10 inches. No. 5.—Corinthian capital of debased type, unfinished; necking and abacus missing. No. 6.—Capital of a corner pilaster. No. 7.—Plain debased Greek Doric capital. No. 8.—Triglyph. Fragments of others were found; to one was attached a portion of a frieze, bearing the letter Ω, the sole survivor of an inscription. Nos. 9, 10.—Capitals of pilasters. No. 11.—Very coarse base, found in the precincts of the large building to the east of the town. No. 12.—Bowl on stand, resembling a font; circular, except the lowest member of the base, which is square. Height, 1 foot 6½ inches. No. 13.—Column similar to No. 2, but more ornate; it has a rude Ionic capital, and the front half of the shaft is roughly fluted. The back, both of the capital and of the shaft, is plain, and it is clear that the column was meant to stand against or to be sunk in a wall. In the top is a square sinking, 2¾ inches deep, 5 inches square, probably for holding the foot of a statuette or similar object. Nos. 14, 15.—Two fragments of clunch with diapers scratched on them. Nos. 16, 17.—Fragments of clunch ruled with lines for some game, similar to draughts. Many were found with plain vertical and horizontal lines; these examples are peculiar in the addition of details (the X in No. 16, and the small strokes in 17). No. 18.—Rude graffito representing a horse, scratched on a large block of clunch.

As the discussion of the date of this town logically belongs to the question of identification, to be treated in Chapter VI, it is sufficient to state here that it probably belongs to the third and second centuries B.C.

(2) *Examination of a small part of the Jewish town buried by the Seleucidan town.*

Our preliminary shafts proved the existence of a Jewish town under the Seleucidan. Desiring to make some detailed examination of the earlier occupation, we excavated to the rock the eastern half of the open space marked "Court" (Pl. 16), thus clearing an area 50 feet long by 30 broad, averaging in depth about 18½ feet. Immediately under the surface we found a series of chambers which were proved to be independent of the "court" by the following facts:—(1) The wall of the court, which rests on débris at a depth of from 3 to 4 feet below the surface, crosses some of the ruined walls of these chambers; (2) other walls are broken off to make room for the court-wall; (3) the court-wall is in places built directly upon the chamber walls, the line of demarcation being clear; (4) the door-sills in the chamber walls are from 3 to 4 feet lower than the level of the court wall, which is ruined below its door-levels; (5) pit-ovens within the chambers (which are usually sunk 3 feet below a given floor level) are found to a depth of 5 feet below the ruined top of the court-wall. These chambers appear to have formed part of the upper city, and to have been destroyed to give place to the court at some period of town improvement. Below these rooms was another series of chambers and part of a street with a small drain below it, connected with a larger vaulted drain. From the pottery which, while showing in general the same type as above, includes a few earlier Greek types, we gather that this was an earlier Seleucidan occupation. At 10 feet there begins a regular Jewish stratum continuing to the rock. There were no pre-Israelite remains. The houses are built of the same rough rubble as was found in the other Jewish towns we have excavated. The pottery showed the ordinary Jewish types, including the Royal jar-handles with the four place-names occurring elsewhere—Hebron, Ziph, Socoh, and Memshath. One of the objects of this large clearance was to ascertain whether any souterrains, similar to those surrounding the hill, exist under the tell itself, originally connected with the rock-surface at points where this is covered by the tell accumulation. Such souterrains would be at least as early as the lowest stratum of débris proved to be Jewish. We found a series of three small bell chambers adjacent to each other, and connected by openings (*see* Part III, p. 238 sqq.).

(3) *Opening of a dozen tombs in the valley north of the tell.*

For several years the rifling of ancient cemeteries has been practised by the natives of Beit Jibrîn and vicinity. A few tombs have been pillaged on the slopes of Tell ej-Judeideh. A group of tombs has also been rifled on the hill to the east of the Zakarîya road, about a quarter of a mile south of the second Roman milestone from Beit Jibrîn. Two very large cemeteries have been systematically excavated, one to the east of the road from Deir en-Nakhkhâs, where it enters the olive grove, and the other to the west of the road from Zakarîya, where this enters the grove. Two large cemeteries also exist to the south of the town. One is on the hill to the west of the road leading to Tell Sandaḥannah, at a point not far from the well at the entrance to the valley. This appears to have been thoroughly searched, the contract having been let for eight napoleons to local speculators. The other is further up the valley, and not only extends on both sides of the road, but the road itself is honeycombed with rifled graves. Fortunately, our presence at Tell Sandaḥannah arrested the excavation, as the fellaḥîn feared to pursue their unlawful digging under the eye of the Imperial Commissioner and under the shadow of the Turkish flag. We opened in this cemetery twelve tombs which had escaped rifling by the fellaḥîn, but discovered that ten of these had been robbed at some earlier period.

Pl. 90 shows a plan of one of these tombs, with drawings of most of its contents. The chamber is roughly hewn in the soft rock, and is not rectangular, the length of side ranging from 12 feet 9 inches to 13 feet 10 inches. The walls are slightly sloping and the roof flat. It is approached from the east by a vertical shaft, hewn in the rock, and carried up to near the present surface by masonry consisting of limestone "bricks." This last feature is not usual, and may have misled the early robbers who took the masonry for a dwelling. At a depth of about 5 feet the shaft is covered in by stone slabs. The chamber contains nine hollow bench-graves, covered over by slabs of limestone not cemented together. Some contained skeletons of two persons, the rest only one skeleton.

Few objects were found in the graves themselves, the majority having been placed on the covers, and in the spaces between the covers of adjacent tombs. Those found within the tombs were as follows:—Three glass bracelets, several fragments of glass vases, one whole glass vessel with spatula of bronze inside (*s*, *t*, on plate), a smaller dark blue glass vessel (*u*), one glass bead, three iron nails, two bronze bracelets (one on the arm of a child), a small bronze disc, and fragments of leather. The objects found on and between the covers are as follows:—(*a*) Fragment of marble mortarium; (*b*) small vessel made of some kind of alloy; (*c*) broken pin of bone, top ornamented; (*d*) pin of blue paste, ornamented head; (*e*) a glass vase; (*f*) marble pounder; (*g*) limestone bowl on fretted stand; (*h*) two bronze bracelets; (*i*) two spindle whorls; (*j*) one blue glass bead; (*k*) ornamented bone pin; (*l*) bronze finger ring; (*m*) dice box (?) of bone; (*n*) glass juglet; (*o*) two bone dice; (*p* and *q*), two small pendants of polished black wood; (*r*) glass bracelet. The most interesting object is the terra-cotta figurine of Venus or Astarte (*see* p. 139). Other objects (not drawn) are: fragments of four closed terra-cotta lamps, a fragment of a terra-cotta vase, common iron bracelet, fragment of wood with bronze nails, ornamented bead of white paste, fragments of a leather shoe (found also in rifled tombs), and fragments of glass vases. One of these contained a small quantity of black powder, apparently kohl (a face-cosmetic). An analysis of this powder and of the two scraps of glass enclosing it was kindly undertaken for Mr. Macalister by Mr. J. E. Purvis, assistant to the Professor of Chemistry in Cambridge University, who reports as follows:—"The glass vessel I find to be an ordinary silicate, which had become devitrified and coloured by oxide of iron, the iron being probably in the sand (silica) used in the manufacture of the glass. The contents were principally finely divided lead and some dirt. There was no trace of antimony in the composition, which thus appears to have been a cheap imitation of the cosmetic prepared for purposes of sepulture. Between the contents and the glass, and forming a thin coating to the glass, was a greenish layer of a copper compound, probably a basic carbonate of copper." As no copper appears either in the glass or its contents, this must have been independent of both, and it seems most probable that there was originally a thin sheet of copper in which the kohl was wrapped for sale or storage. The packet, foil and all, was deposited in the glass vessel; but the foil has disappeared, and its existence can be demonstrated by chemical tests only.

The decorated tomb shown on Pl. 91 was not discovered by us, but opened by the natives in the cemetery near the well. It consists of a vestibule, from which open three tomb chambers having barrel-vaulted roofs, and each containing three hollow bench-graves. The position of the various decorations is shown by the lettering. The most important occurs at the back of the chamber, opposite the entrance. Unfortunately this was much defaced by the finders. Under a circular oak-leaf pattern we have two winged figures holding up a wreath within which there is an inscription. A facsimile is given in Part III (p. 201) of the remaining traces, which were just sufficient to enable Mr. Macalister to recognise the well-known pagan formula, *οὗτος οἶκος αἰώνιος*, *i.e.*, this is an eternal house. The colouring is as follows:—The birds are in dark Indian red, the

wreaths around the internal arches are green with an Indian red border, the inscription is in Indian red, the wreath around it being green, though the outer leaves are very light blue, and the winged figures are outlined in Indian red with lighter red details.



FIG. 25. STONE DISC WITH HUMAN FACE.

In the other unrifled tomb opened by us were five hollow bench-graves, closed in by covers. In one case only these were cemented together. Within the graves were two gold earrings; two iron nails; one bronze nail; three bronze spatulas; two fragments of glass vessels; one anklet, and a small jar. The ten rifled tombs which we opened had all been carefully closed in again, probably by the original robbers, so that no superficial trace was left. The types of tombs are treated in Part III. The cemetery appears to date from a late Greek period. In one of the rifled tombs was found the curious disc with human face (Fig. 25).

Apart from the objects in the tombs, the finds at Tell Sandaḥannah were as follows :—

(1) *Pottery.*—The finds in pottery were unusually rich, and especially valuable, as they illustrate the Seleucidan period, about which little had been previously known. The overlapping of types, originating at an earlier (Jewish) period, was ascertained, and much light was thrown on the history of the lamp in Palestine. The perfect, or nearly perfect, specimens included, in round numbers, 30 large jars and pots, 60 vases, 170 bowls and dishes, and 150 lamps. A large proportion of these were found immediately outside the inner wall of the city, where they were evidently thrown, though it is curious that so many were unbroken. The ruin of so large a part of the town below the ground level, explains the comparative paucity of finds within the walls.

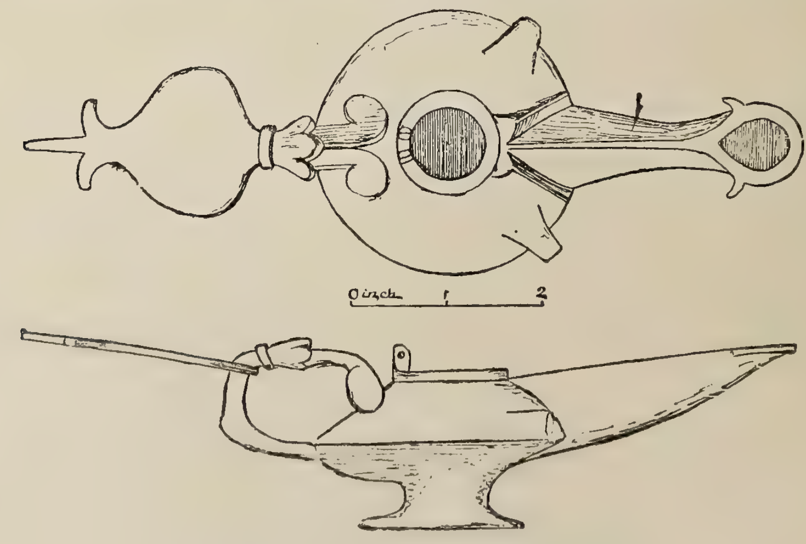


FIG. 26. BRONZE LAMP: TELL SANDAḤANNAH.

Over 350 stamped jar-handles of Rhodian ware were discovered, principally on the surface of the land surrounding the tell, from which they had probably been washed down by the rains.

(2) *Inscriptions.*—Chapter VI, Part I.

(3) *Magical Objects.* — Chapters VIII, and IX, Part II.

(4) *Coins.* — Chapter VI, Part I.

(5) *Bronze.*—The most interesting objects were the lamp, Fig. 26; an ordinary Greek figure of Cupid, badly corroded, length 4¼ inches; and the large weight, of 669·445 grammes (Fig. 27).

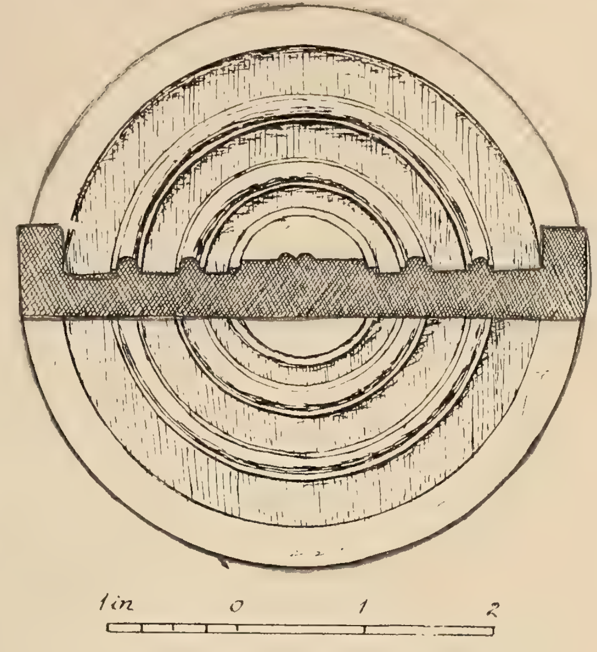


FIG. 27. BRONZE WEIGHT: TELL SANDAḤANNAH.

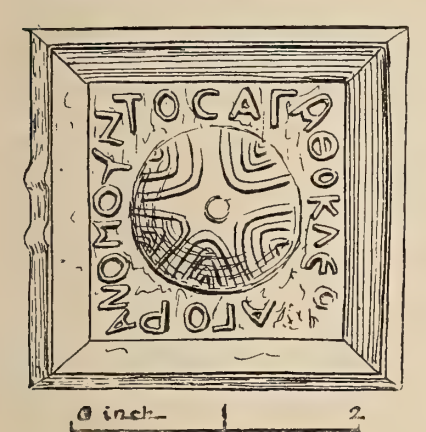


FIG. 28. LEAD WEIGHT.

(6) *Lead.*—(*a*) Figures bound with fetters (Pl. 85); (*b*) weight of 145 grammes (Fig. 28). The back is ornamented in plain lozenge diaper. On the face is the inscription **ΑΓΟΡΑΝΟΜΟΥΝΤΟϹ ΑΓΑΘΟΚΛΕΟ(ΥϹ)**. "Of Agathocles, Master of the Agora." The two little knobs at one edge may indicate that the weight contains double the standard; (*c*) the vessels shown in Fig. 29.

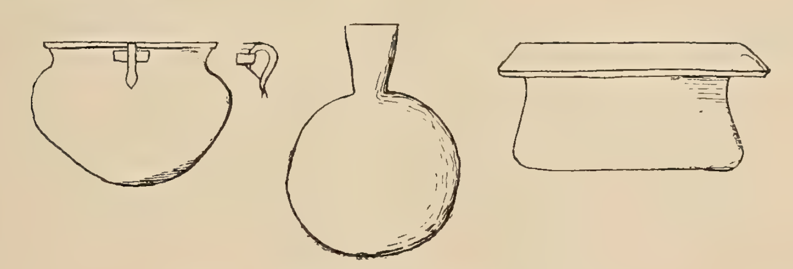


FIG. 29. LEADEN VESSELS: TELL SANDAḤANNAH.

F. J. B.

CHAPTER VI.

IDENTIFICATION OF SITES.

THE ancient sites of Palestine fall under four classes :—(1) A site which preserves its former name either exactly or under an easily recognized modern guise, which corresponds in position to the historical references, and which shows remains commensurate in size and corresponding in character with those references. Some of these sites have had an almost continuous history, as Jerusalem, Jericho, Bethlehem, Gaza, etc.

(2) A site in which the modern name appears to correspond with some Biblical town, which agrees in general with the geographical position of that town, but the extent and nature of whose remains show no affinity with the historical notices of the place. Such is the small ruin Umm Lakis, whose identification with the ancient and important city of Lachish, suggested by Robinson, was rejected by Petrie after three days' digging had absolutely confirmed his first suspicions that it was not inhabited before Græco-Roman times. At Tell el-Ḥesy, on the contrary, the accumulation of 60 feet of débris shows objects with a range of date corresponding to the history of Lachish. Another instance of this type of site is Khurbet Shuweikeh, on a slope above the vale of Elah. Robinson, Conder, and others have identified this with the Socoh described in 1 Sam. xvii, 1, as being on the brink of this valley. Socoh was a prominent town in pre-Israelite and Jewish times, and the amount and character of débris produced by such towns is now well known. An examination of the remains at Khurbet Shuweikeh, consisting of hardly more than 5 feet of débris, characterized by Roman and Arab pottery, has led me to reject the identification.*

(3) A site in which the identification with a given Biblical site is not suggested by similarity of name, but by suitability of position and by an apparent correspondence of the nature of the ruins with the historical reference. In such cases excavations may positively establish the proposed

* See *Q.S.*, 1900, p. 97.

identification; they may positively disprove it, or they may leave the question *in statu quo.* The identification may be said to be positively established only by inscriptions found at such a site, *i.e.*, by the name of the town on some building (or, as in the case of Tell Jezar, on a boundary stone), or a series of tablets addressed to the governor of the town. The identification may be said to be positively disproved when inscriptions point to another identification, or when the apparent correspondence of the remains is not borne out by the objects unearthed. The identification is left *in statu quo* when no inscription containing the name of the town has been found, but when the finds agree in age with the historical references. In such a case, though the results furnish no final proof, they may be said to be so far confirmatory. In general Tell Zakarîya, Tell eṣ-Ṣâfi, and Tell Sandaḥannah, fall under this third class.

(4) A site which furnishes no clue to identification either in its modern name or in its geographical position. In such cases excavation may or may not furnish an identification. Under this class falls Tell ej-Judeideh.

The identification of Tell eṣ-Ṣâfi with Gath was made in 1857 by Rev. J. L. Porter,* and has been held by many archæologists. Gath probably lay near the border between the Hebrews and the Philistines, as its possession was the constant occasion of contest between the two peoples. During the days of Eli it was in the land of the Philistines, who captured the Ark of the Lord, carrying it in turn to Ashdod, to Gath, and to Ekron (1 Sam. v, 1–10). Samuel, however, took the city after the great gathering at Mizpeh (1 Sam. vii, 13, 14). From the phrase, "and the cities which the Philistines had taken from Israel were restored to Israel from Ekron even unto Gath," Dr. G. A. Smith infers (*H. G.*, p. 195) that it had originally been Israelite; but this inference implies that all the vicissitudes of the town have been chronicled. Gath is not mentioned in the list of cities assigned to Judah, which includes Ekron, Ashdod and Gaza, but not Ascalon. This omission and the account of Joshua's inability to drive out the Anakim from Gath (Josh. xi, 22), is significant, though it should be noticed that these giants were left in Gaza and Ashdod as well. Is it possible that a sort of suzerainty was originally established over three of the Philistine towns, but not extended to the more impregnable sites of Gath and Ascalon?

By the time of Saul Gath had again reverted to the Philistines, whose

* Smith's D.B., First Edition, Art. *Gath.*

giant champion Goliath came from that city. The best clue to its position is found in the account of the flight after the battle between David and Goliath in the vale of Elah. In 1 Sam. xvii, 52, we read, "And the men of Israel and of Judah arose and shouted, and pursued the Philistines until thou comest to Gai (the Sept. has *Gath*) and to the gates of Ekron. And the wounded of the Philistines fell down by the way to Shaaraim (or *the two gates*), even unto Gath and unto Ekron." In other words, the flight began in the vale of Elah, and ended at Ekron—Gath apparently being passed on the way. The vale of Elah is the modern Wâdy eṣ-Ṣunṭ which sweeps round Tell Zakarîya (either Azekah or Socoh, near which the battle was fought), debouching in the plain at Tell eṣ-Ṣâfi, from which ʿAḳir (the ancient Ekron) may easily be reached. As no other important site occurs on the route, to place Gath at Tell eṣ-Ṣâfi is a reasonable inference from this passage.

The narrative is silent as to whether Gath was captured during this campaign, but that shortly after it was in the hands of the Philistines is clear, as David in his flight from Saul twice took refuge with its king Achish (1 Sam. xxi, 10; xxvii, 2). After he became king the possession of Gath appears to have been constantly disputed. Taken by David early in his reign (1 Chron. xviii, 1, but *cf.* 2 Sam. viii, 1), it was the scene of a bloody battle during his last years (2 Sam. xxi, 20, 21). At a period between these two events we find a band of 600 Gittites, led by Ittai, who is described as an exile, loyally following the king in his flight before Absalom. In the early days of Solomon Shimei seeks his servants who had fled to Achish, son of Maacah, king of Gath (1 Kings ii, 39–41). In the time of Rehoboam, however, it was again under Hebrew control, as its name occurs in the list of the cities of Judah fortified by him (2 Chron. xi, 8).* More than a century after, Gath was taken by Hazael, king of Syria, but from whom is not stated (2 Kings xii, 17). Later Uzziah warred against the Philistines, breaking down the wall of Gath. This, as Dr. G. A. Smith observes, was probably early in his long reign, as the reference of Amos, his contemporary, to Gath, implies that it had been overtaken by a fate similar to that which hung over Samaria—its total destruction (Amos vi, 2). At any rate, no more is heard of Gath in the Old Testament,† in the Books of the Maccabees, or in Josephus.

* But *see* note, p. 65.

† Dr. G. A. Smith points out (*H.G.*, p. 194, *note*) that the proverbial expression in Micah i, 10, "Tell it not in Gath" is hardly an exception.

Tell eṣ-Ṣâfi suits the requirements for the position of Gath in 1 Sam. xvii, 52, better than the other sites proposed, Khurbet Dhikerîn, Deir ed-Dubbân, and Beit Jibrîn. The last is far off the line of flight. Its identification with Gath was suggested by Thomson on the ground that its early name (found in the Peutinger Table, 4th century A.D.) signifies the "house of the giants," for whom Gath was famous. The proximity of Khurbet Mer'ash (supposed by some to be identical with the Moresheth-Gath of Micah i, 14) is held to favour this view, but as Gath signifies "wine press" and is associated with at least two other towns, Gath-Hepher and Gath-Rimmon, this suggestion has little weight. Dr. G. A. Smith holds that while none of the Biblical references prevent the identification with Tell eṣ-Ṣâfi, this is by no means proved by them. Sir Charles Warren * points out that while it is naturally a very strong site for a fortified town, the other fenced cities of the Philistines, Ekron, Ashdod, Ascalon and Gaza show no such positions, adding, "If it" [Gath] "had such pronounced natural features for defence, it is difficult to understand how its existence can have so completely disappeared from history after the time of Hezekiah."

Previous to 1890 the identification of Tell eṣ-Ṣâfi with Gath had been based mainly on the ground of position, but in that year Dr. Flinders Petrie proved the antiquity of the site by noting the great accumulation of débris, and the Jewish and pre-Israelite pottery strewn on its lower slopes. We may now ask what bearing our excavations had on the question. As the site furnished no inscriptions containing the ancient name of the place, this bearing was necessarily indirect. On the whole, the results of our work were distinctly favourable to the identification. In the first place we proved that the oldest remains at Tell eṣ-Ṣâfi date from early pre-Israelite times, thus confirming Petrie's observations that the site is as old as the Philistine city of the Anakim. Secondly, from the fact that the city wall, which we uncovered, rested not on the rock but on a considerable amount of débris, characterized by early pre-Israelite pottery, we assumed that it was built in Jewish times. This may have been the work of Rehoboam,† and certainly a wall existed at Gath in the time of Uzziah. In the third place, our excavations showed that there was apparently no interruption in the history

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* Hastings' D.B., Art. *Gath.*

† 2 Chron. xi, 8, but note that both the reading and the identification are questioned by Dr. G. A. Smith (*H.G.*, p. 195, *note* 4).

of Tell eṣ-Ṣâfi until Seleucidan times. To those who hold that absence of all later reference to Gath in the Old Testament, in the books of the Maccabees and in Josephus, while the other Philistine towns are frequently mentioned, proves that it was deserted in the 8th century, this fact will appear to militate against the identification. We admit that the objection is worth considering, but at the same time we should remember that the "argument from silence" should always be used with extreme caution.*

Tell Zakarîya (which takes its name from the sacred building dedicated to Zacharias, the father of John the Baptist, in the village) rises from the Wâdy eṣ-Ṣunṭ, or vale of Elah. On one of the slopes above this valley were two ancient cities, Socoh and Azekah, between which the Philistines were encamped before their champion, Goliath, engaged in battle with David in the valley below (1 Sam. xvii, 1). The identification of this Socoh† with Khurbet Shuweikeh on the south side of the valley has been generally accepted, but, as already stated, the remains by no means favour this identification. Rabbi Schwarz placed Azekah at Tell Zakarîya,‡ which has always been recognized as an important site. The alternative site, Deir el-'Ashek, in the valley of Sorek (*see* "Names and Places," by G. Armstrong), would better suit the requirements of Josh. x, 10, 11, describing the pursuit of the five kings from Gibeon to Makkedah by way of Azekah, and perhaps indicates a second town of the same name, as the Azekah in the vale of Elah is far out of the line of pursuit. Azekah was one of the towns assigned to Judah (Josh. xv, 35), was fortified by Rehoboam (2 Chron. xi, 9), was captured by Sennacherib (Jer. xxxiv, 7, *cf.* 2 Kings xviii, 13), and was occupied by the Jews on their return from the Exile (Neh. xi, 30). There is thus nothing in the history of the place to prevent its identification with Tell Zakarîya, which was proved to have been founded in pre-Israelite times, fortified during a later period, probably Jewish, and inhabited certainly as late as Seleucidan times. On the other hand, the remains apply almost equally well to the identification with Socoh, whose history runs practically

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* Convinced that Gath was totally destroyed about 750 B.C., Dr. G. A. Smith regards as a valueless tradition the reference to Gath in the "Onomasticon," "it is even now a village as you go from Eleutheropolis (Beit Jibrîn to Diospolis (Lydda)), at about the fifth milestone from Eleutheropolis." In going from Beit Jibrîn to Lydda, Tell eṣ-Ṣâfi is passed at about the eighth English mile. No Byzantine remains, however, were found at this site.

† Another Socoh is mentioned among the towns in the mountains (Josh. xv, 48).

‡ Supported also by Van de Velde, Sir C. Wilson (Smith's D.B., 2nd Edition, Art. *Azekah*), etc.

parallel to that of Azekah, save that it is not mentioned among the towns inhabited after the exile. In this case we would suggest that the preservation of the name at Khurbet Shuweikeh, three miles away, may be due to the not uncommon transference of names from one site to another.

Tell Sandaḥannah owes its present name to the neighbouring ruined church of St. Anne.* Our excavations were confined to the tell itself, and proved the existence of a walled Seleucidan town built on the ruins of a Jewish town. The environs of the tell, however, are covered with ruins which show that the city had extensive suburbs. In 1890 Dr. Flinders Petrie noticed that the fields between the tell and Khurbet Merʿash, barely three-quarters of a mile away, were strewn with early Jewish pottery, though Khurbet Merʿash itself shows only a slight depth of débris, clearly Roman.† This site has been identified with Mareshah, from the similarity of name, but the ruins at the spot itself do not point to a city as extensive or as ancient as Mareshah.‡ Dr. Petrie suggested that the original town lay hidden under Tell Sandaḥannah, the name having clung only to a suburb on a spur of the neighbouring hills. This suggestion was made in Dr. Petrie's journals (*Q.S.*, 1890, p. 244), which I had not before me when I independently advanced the same theory (*Q.S.*, 1900, p. 336).

Mareshah was a town of Judah situated near the valley of Zephathah (2 Chron. xiv, 9, 10), which Conder identifies with Wâdy eṣ-Ṣafieh (*see* "Names and Places"), the name applied to the leading valley passing Deir en-Nakhkhâs and Beit Jibrîn, at a point about 2½ miles N.E. of Khurbet Merʿash and Tell Sandaḥannah. According to the LXX, this valley was north of Mareshah. This town was in existence at the time of the Hebrew Conquest (Josh. xv, 44), was fortified by Rehoboam (2 Chron. xi, 8), and was near the field of the encounter between Asa and Zerah the Ethiopian (2 Chron. xiv, 9). In Seleucidan and early Roman times it played a prominent *rôle*. It was plundered by Judas Maccabæus (Jos. Ant. XII, 8, § 6), conquered by John Hyrcanus (Ant. XIII, 9, § 1), restored to the

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* This is the generally accepted view, but Conder suggests (*Q.S.*, 1901, p. 59) that Sandaḥannah took its name from the Knights of St. John, who occupied Beit Jibrîn in the 12th century.

† At this site I observed a characteristic Roman or Byzantine pavement of tesseræ.

‡ Khurbet Merʿash is about one English mile south of Beit Jibrîn. The statement of the "Onomasticon" that Mareshah is in the second mile from Eleutheropolis, is held to favour the identification.

Idumæans by Pompey (Ant. XIV, 4, § 4), and finally destroyed by the Parthians in 40 B.C. (Ant. XIV, 13, § 9).

The remains at Tell Sandaḥannah furnish strong arguments for the identification with Mareshah, the only weak point being that no objects were found that could be dated earlier than Jewish times. It should be noted, however, that our excavations were confined mainly to the surface town. The rock was reached only in a small clearance (*see* p. 58), and it is quite conceivable that pre-Israelite remains may exist in the parts not excavated to the rock. The various objects found in the surface town dated it from Seleucidan times. The pottery was all later than 350 B.C. A number of coins were found, of which only sixty-one were at all in a decipherable condition. Of these twenty-five were coins of John Hyrcanus, nineteen were to be assigned to Seleucidan kings, and thirteen to Ptolemaic kings; several of the latter were large copper coins, showing the head of Jupiter on the reverse, and on the obverse the double eagle, with the inscription **ΠΤΟΛΕΜΑΙΟΥ ΒΑΣΙΛΕΩΣ**. Of the other four coins, one was of Herod, two were Greek of uncertain date, and the fourth Roman, also of uncertain date. Besides the imprecatory tablets, three inscriptions were found, and two of these appear to date from Seleucidan times. The first occurs on the fragment of a cylindrical base (Figs. 30, 31), having a radius of about

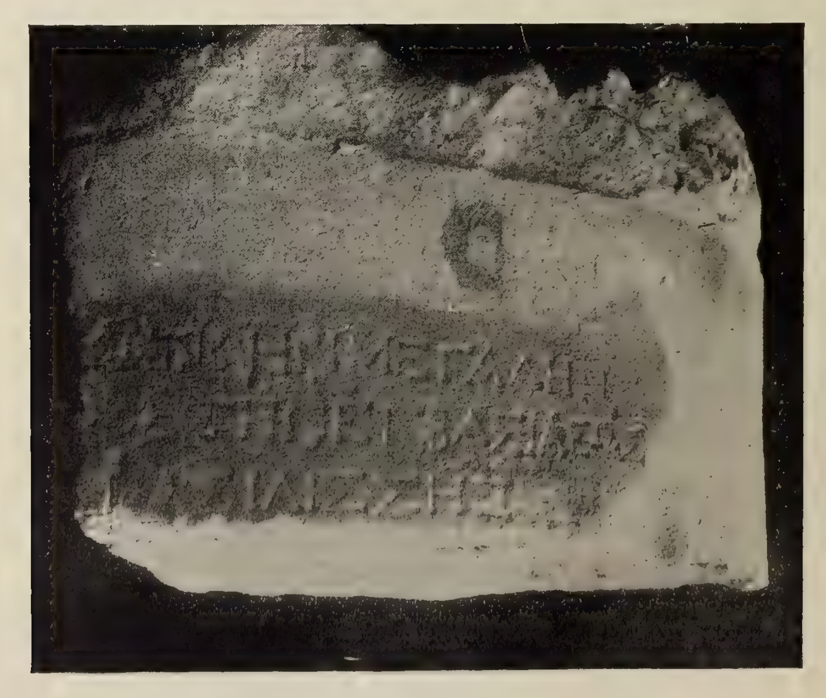


FIG. 30. INSCRIPTION OF ARSINÖE: TELL SANDAḤANNAH.

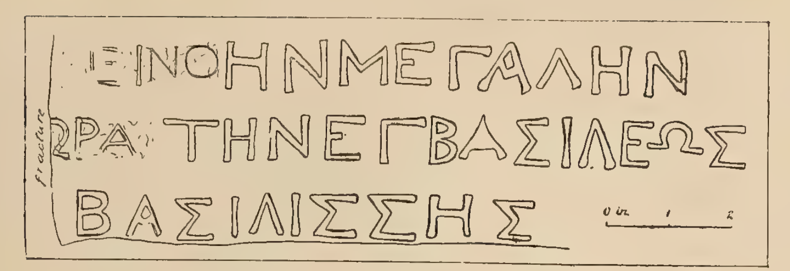


FIG. 31. DIAGRAM OF THE ARSINÖE INSCRIPTION.

$14\frac{1}{2}$ inches, built into a mass of masonry under the foundations of room e (*see* Pl. 16), and thus antedating this particular house. A thorough but unsuccessful search was made for other fragments of the base. The inscription is broken off at the bottom, as well as at the left side, where signs of hammering are visible. The third and fourth letters in the first line (N O) are thinner in character than the rest of the letters in the line, but not more finely cut than the tops of the first three letters of the second line.* Dr. Murray and M. Clermont-Ganneau agree in seeing here the base of a statue of one of the Ptolemaic Queens called Arsinoë (*Q.S.*, 1901, pp. 54, 55, 59). M. Ganneau's restoration of the inscription, which he states is offered tentatively, is as follows :—

[Βασίλισσαν 'Αρσ]ινόην, μεγάλην
[Θεὰν ? Φιλοπάτ](ο)ρα, τὴν ἐγ βασιλέως
[Πτολεμαίου καὶ] βασιλίσσης [Βερενί-]
[κης, θεῶν Εὐεργέτων . . . .]
[. . . . .]

[*The queen Arsin*[*öe great* [*goddess* (?) *Philopat*]*or, daughter of the king* [*Ptolemy and*] *of the queen* [*Berenice the gods Euergetes* . . . .]

M. Ganneau would identify the queen mentioned with Arsinoë, sister and wife of Ptolemy IV Philopator. He notes that this woman was present with her husband at the battle of Raphia, south of Gaza,† where Antiochus the Great was defeated, and asks whether the statue at Tell Sandaḥannah may not have been raised in her honour at this time.

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* In reporting the discovery of this inscription (*Q.S.*, 1900, p. 334), I stated that these letters were sharply cut over traces of other letters, but further examination convinces me that I was wrong.

† 3 Macc., i.

The second inscription (Fig. 32) shows the letters **BEPENI** engraved on a fragment of limestone, with slightly curved surface, found loose on the slopes of the tell. The name Berenice is conjecturally identified by M. Clermont-Ganneau with the mother of Ptolemy IV Philopator, to whom he supposes a statue, similar to that of his wife, and also mentioning the name of his parents, may have been dedicated on the same occasion.

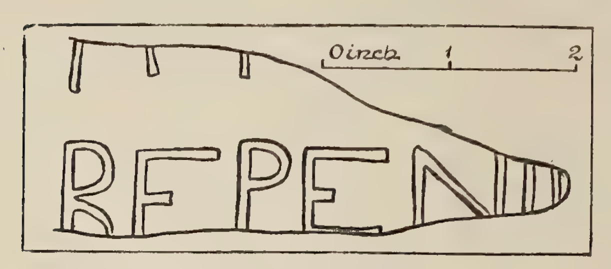


FIG. 32. DIAGRAM OF BERENIKE INSCRIPTION.

The fragment which contains the third inscription (Fig. 33) is part of the base of a colossal statue of an eagle, of which only one claw is preserved. This also was found on the slopes of the tell. The inscription was in two lines, the ends of which alone remain—



FIG. 33. FRAGMENT OF GREEK INSCRIPTION : TELL SANDAḤANNAH.

. . . . **ΣΚΡΑΤΩΝΟΣ**
. . . . **ΩΝΙΕΥΧΗΝ**

It has been ingeniously restored (*Q.S.*, 1901, p. 57) by M. Ganneau as follows :—

[Σκόπα]ς Κράτωνος
['Απόλλ]ωνι εὐχήν

"[*Skopa*]*s, son of Kraton, to Apollo* [*addresses his*] *prayer.*"

Tell ej-Judeideh (*i.e.*, "the little new place" or "the little renewed place") has never been identified, as far as I am aware, with any ancient town. The remains indicate that, though founded very early, the city suffered an interruption in its history during late pre-Israelite times. Mr. Macalister points out that this fact would probably render hopeless any attempt to look for its name in the lists of Joshua. The excavations unfortunately gave no suggestion of an identification.

F. J. B.

PART II.

THE POTTERY AND OTHER OBJECTS.

CHAPTER I.

CLASSIFICATION OF THE POTTERY.

In Part I, describing the excavations, great emphasis has been laid on the pottery. In Palestine, where dateable objects are so few it may be called the key to chronology. Extensive excavations were risked at three out of the four sites described in this volume, mainly because we believed in the soundness of the deductions drawn from an examination of the surface pottery. Thus the Jewish pottery lying on the surface of Tell Zakarîya gave hopes that pre-Israelite ware lay concealed in the depths below. When in due course these depths were reached, they were found to contain the pottery expected. That this ancient stratum contained few precious objects was a matter of chance, impossible to foresee. In Part II we propose to discuss the pottery of Southern Palestine in such a manner as to convince the reader that a knowledge of this humble branch of archæology is indispensable in determining chronology.

The foundations for the study of the pre-Roman pottery of Southern Palestine were laid by Dr. Flinders Petrie in the spring of 1890, when he conducted excavations for the Palestine Exploration Fund at the stratified mound of Tell el-Ḥesy, identified with the ancient Lachish. While his classification* has been the basis of all later work, his conclusions have

* "Tell el-Ḥesy" (Lachish), by W. M. Flinders Petrie.

been somewhat modified by subsequent excavations. During the spring and autumn seasons of 1891 and 1892 I completely cut down about one-third of this mound, when Petrie's view of the ideal fitness of the place for a systematic study of pottery was confirmed. The tell has a maximum accumulation of 60 feet of débris, which was proved to represent the remains of eight superimposed towns. Owing to the nature of the building material, *i.e.*, sun-dried brick, the stratification was but little disturbed. When one town fell into ruins, it was buried in its own débris, its ground plan (in part at least) being preserved; and on these ruins rose the foundations of the next. Thus in general the objects found at any given level were *in situ.* In my systematic cutting down of the mound I was able to note the changes in the styles of pottery from town to town, and to compare the pottery with such other objects found as were dateable. My results were in general confirmatory of Dr. Petrie's, but as the subject had been so recently and so fully treated by him, I touched upon it only incidentally in my "Mound of Many Cities." The excavations conducted during the years 1894–7 by Mr. Dickie and myself at Jerusalem were chiefly of a topographical character, and the finds of pottery were very few. But the recent work at Tell Zakarîya, Tell eṣ-Ṣâfi, Tell ej-Judeideh, and Tell Sandaḥannah has proved so fruitful in the discovery of whole specimens of pottery, amplifying and modifying the results at Tell el-Ḥesy, that we are now able to present the outlines of the history of the pottery of Southern Palestine from early pre-Israelite to Roman times.

The pre-Roman pottery of Southern Palestine falls under four groups or periods. (1) A period before Mykenæan or Phœnician influence is felt; (2) A period in which this influence is predominant; (3) A period during which this influence is lost or is shown in deteriorated forms; (4) the Seleucidan period. Some difficulty has been felt in choosing names for the different periods, but we have finally decided upon the following nomenclature:—(1) Early pre-Israelite; (2) Late pre-Israelite; (3) Jewish; (4) Seleucidan. The arguments which have led to this classification are as follows. The lowest stratum of Tell el-Ḥesy (consisting of City Sub I and City I) contains unique types of pottery showing absolutely no trace of Mykenæan or Phœnician influence, which, however, begin to appear immediately above, in City II. Phœnician influence begins to be felt in Egyptian pottery about 1400 B.C., and it is quite possible that it extended

into the neighbouring Palestine a century earlier. This supposition is suggested by the discoveries in the cities above—or Cities III and IV. These towns were characterized by Phœnician pottery, while in City III was found a cuneiform tablet which is generally held to be contemporaneous with the Tell el-Amarna series, thus dating City III at about 1450 B.C. We thus appear to have grounds for dating City II at about 1500 B.C. This would throw back Cities I and Sub I, which, as stated above, are characterized by pottery uninfluenced by Mykenæan or Phœnician styles, to a still earlier date. The perfection to which some of the styles were brought indicates either that these towns represent a very long period of occupation, or that City Sub I postdates the origin of the ware. The only clue to the date of this origin is given by the finding in Egypt of highly characteristic similar types, which Petrie believes were introduced by an immigration from Palestine 2000 years before the First Dynasty (*see* p. 80).

The name Amorite applied by Petrie to this ware appears to be at once too definite and too indefinite: too definite in that it limits the pottery, the geographical distribution of which is only just beginning to be known, to one division of the Canaanites; too indefinite, as so little is known of the Amorites. The name early pre-Israelite seems to suit the requirements better. While it assumes nothing as to the exact date or place of the origin of the ware, it implies that it was in use considerably before the Hebrew conquest.

Having fixed in general the position of the pottery of the first period, we may turn to the last, where we also find ourselves on fairly solid ground. We have named the pottery of this period Seleucidan, as great quantities were found in the town which we thoroughly excavated at Tell Sandaḥannah, and which was proved by coins, inscriptions, etc., to date from the third and second centuries B.C., when Palestine was the prey of the Ptolemies of Egypt on the one hand, and the Seleucidan kings of Antioch on the other. This pottery is very rarely associated with the red and black figured Greek ware, which disappears about 350 B.C. Hence we may assume that it was not a prevailing type much before 300 B.C. There remains, then, an interval of about 1200 years between the close of the first period, about 1500 B.C., and the beginning of the fourth period, about 300 B.C. As stated above, we have divided this interval into two periods, the line of demarcation being the cessation of direct Mykenæan and Phœnician influence on the pottery of Palestine. The range of this influence in Egypt is from about 1400 B.C. to

about 800 B.C.* We have shown that in Palestine it began to be felt somewhat earlier, and it may be safely presumed that it lasted quite as long, if not longer. This view is supported by the occurrence of Phœnician ware through an accumulation of 30 feet at Tell el-Ḥesy, that is in Cities II to V inclusive. The pottery of the second of these two medial periods appears to have been in use during the latter days of the Jewish kingdom, as at four different sites it was associated with certain types of Greek ware, which date in Egypt from the sixth and seventh centuries B.C. A few of the types are found in the Seleucidan town at Tell Sandaḥannah. Hence it is difficult to find titles to describe these two classes, the first of which lapped over into the Hebrew monarchy, while the second, beginning in the latter part of that monarchy, lapped over into Seleucidan times. The terms late pre-Israelite and Jewish, as applied to these two classes respectively, are not exact, but come as closely within the indefinite conditions as any terms that could be chosen. By late pre-Israelite pottery, then, are meant those types with marked Phœnician or Mykenæan characteristics, together with associated local styles, which originated not long before the establishment of the Hebrews in Palestine. How far they extended into the times of the Hebrew monarchy has yet to be determined. By Jewish pottery we mean those types in which the foreign influence is almost lost, which came in late in the Jewish monarchy, but survived its overthrow.

Of the five sites excavated no single site furnished abundant examples of all the four classes of pottery. At Tell el-Ḥesy the first three periods were well illustrated, but the Seleucidan ware was entirely wanting. At Tell Zakarîya the late pre-Israelite and the Jewish ware were abundant, but the early pre-Israelite and the Seleucidan styles were found in much smaller proportions. Tell eṣ-Ṣâfi was rich in the first three periods (the local painted ware of the second or late pre-Israelite period being especially in evidence), but specimens of Seleucidan pottery were few. At Tell ej-Judeideh the Jewish stratum was found directly imposed upon the early pre-Israelite bed, late pre-Israelite specimens occurring only sporadically. The surface showed a few Seleucidan types, though these were not as common as even at Tell Zakarîya. The bulk of the Seleucidan pottery came from the surface

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* *See* "Tell el-Ḥesy," p. 15.

town excavated at Tell Sandaḥannah. From one clearance (about 50 feet by 30 feet) made to the rock, we gathered that the earliest occupation had been Jewish, since the two earliest periods were wanting at this site.

While our classification was based upon the constant association and succession of certain types, a disturbance of the stratification was sometimes to be noticed—varying according to the nature of the building material at different sites. Owing to the fact that mud-brick requires no foundations but mud-brick, the builders of a given town at Tell el-Ḥesy had practically no need of excavating the town below. Hence this place furnished the normal scale for the pottery. The Seleucidan town of Tell Sandaḥannah was built of soft, light, limestone "bricks," which required slight foundations, necessitating little disturbance of the soil. The Jewish Fortress of Tell Zakarîya, however, rested on the rock, and in digging trenches through the ancient débris for the underground foundations, the builders brought to the then-existing surface some fragments of pre-Israelite pottery. At Tell eṣ-Ṣâfi the chief building material was stone during all periods, hence the disturbance of the soil varied directly with the altitude of the layers; the earliest stratum contained nothing but early pre-Israelite ware, though some of this was shifted to the second stratum; the late pre-Israelite stratum contained no later ware, but specimens of its own characteristic pottery, together with a few fragments from the earlier stratum, were shifted to the Jewish town; the highest or Crusading stratum was interpenetrated with specimens from all the lower layers, the Jewish naturally constituting the majority of these sporadic appearances. The mixture of styles may be explained in a few cases by the survival of types, but common sense shows that at Tell eṣ-Ṣâfi it must have been largely due to the disturbance of the soil. The survival of types was best illustrated by a comparison of different sites. For example, take the cooking pots (Pl. 54) constantly found with exclusively Jewish types, but occurring in numbers in the surface town of Tell Sandaḥannah, which contains Seleucidan ware almost exclusively. Strict contemporaneity of individual vessels—known by their types to belong to the same general period—was proved by finding these grouped *in situ*, as for example the seven varieties of Jewish ware in a buried layer on a flooring at Tell ej-Judeideh. Unfortunately, the only analogy we found to tomb-burials (the safest test for contemporaneous types) was in the jar deposits, the finest examples of which occurred in a sandy bank near Tell el-Ḥesy. In the case of unique objects, whole specimens could

reasonably be relegated to the stratum in which they occurred, while fragments could be thus classified only when the stratum was undisturbed.

Our study of the pottery involved the examination of several hundred thousand fragments, and of numerous whole specimens. At the close of each campaign the pieces preserved were handed over to the authorities in Jerusalem. During the last season these amounted to about 1400: a small representative selection from the various objects was forwarded to the Imperial Museum at Constantinople, at the request of the learned Director, Hamdy Bey, who most kindly made a grant of sixty-five duplicate objects to the Fund. In the spring of this year (1901) I arranged the remaining objects in a small museum in the Turkish School near Herod's Gate at Jerusalem. The nucleus of this museum consisted of the objects found at Tell el-Ḥesy, and of some coins and a large and beautiful collection of glass, furnished by Isma'il Bey el-Husseini, Director of Public Instruction.

In illustrating the types of pottery for this volume, Mr. Macalister has adopted the method of diagrams, showing in a large number of cases half the object in outline and half in section. The *provenance* of a given object is indicated by one of the following initials, H, J, S, Sn, or Z, which stand respectively for Tell el-Ḥesy, Tell ej-Judeideh, Tell eṣ-Ṣâfi, Tell Sandaḥannah, and Tell Zakarîya. These abbreviations are also to be found in the text. The abbreviation M.M.C. refers to my "Mound of Many Cities." As the scale to which the objects on a given plate are drawn is there indicated, the text is not encumbered with measurements, which are repeated only in special instances. For comparison with the sheets of diagrams, it has been deemed wise to publish three plates* (Nos. 20–22) of photographs, representing types of the four different periods, the first two being combined on Pl. 20, owing to the paucity of whole vessels of the first period. A large vessel, most characteristic of this period, is represented in Fig. 2 (p. 7).

F. J. B.

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* References to these plates are given thus:—No. 2 (*see* No. 7, Pl. 20).

CHAPTER II.

POTTERY: EARLY PRE-ISRAELITE PERIOD.*

(Pls. 23–29.)

This is the period before foreign influence is seen in the pottery of Palestine, and dates from very early times to about 1500 B.C. As Dr. Petrie has pointed out, the types are very distinctive, being quite unlike Phœnician styles on the one hand, and indigenous Egyptian forms on the other. Although many thousand fragments of this ware have been discovered, it is unfortunate that the number of whole specimens found has been relatively very small. Thus while we now have a fairly comprehensive knowledge of the sorts of clay used, of the characteristic treatments of surface, of the peculiar handles and spouts, and of the potters' marks, much has yet to be learned as to shapes. Such vessels as were found entire or as could be reconstructed from fragments, are drawn on Pls. 23–25. The terms "ledge handles," "comb-facing," "patterned burnishing," etc., occurring in the descriptions, are explained in the description of Pls. 26–28, which is concerned with details.

Pl. 23. *Large Jars.*—These three types are very common, as is proved by a study of numerous potsherds; but Nos. 1 and 2 were the only specimens found whole, while No. 3 was drawn from large fragments, as no whole specimen was discovered. No. 2 was found cracked *in situ* at J, and excavated in numerous pieces. No. 1 (*cf.* Fig. 2, p. 7) was brought to the surface at S comparatively intact, from a depth of 20 feet, but was broken into scores of fragments by the accident related on page 7. All have flat disc bottoms, in contrast to the pointed or rounded bottoms characterizing the large vessels of the next period. No. 1 is made of a very coarse, black clay, burning black and red. It is hand-made throughout, the curvature of the sides being irregular; the neck and mouth are symmetrically moulded,

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* In this and the following chapters the references to "Phœnicia" and "Phœnician influences" must be considered as provisional, their final acceptance being dependent on the verdict of future discoveries in Syria.

but no signs of the wheel appear. It is covered with a coarse white wash (characteristic of this period), and is not strictly comb-faced, but has been scraped over with a broad pointed stick, leaving minute ridges at irregular intervals. This jar is 33 inches high, being quite 12 inches higher than the large jars of the next period. It has a flat bottom, graceful oval shaped body, invecked neck with cable moulding, plainly moulded rim, and no handles. At Z the neck and mouth of a jar of similar size, and probably of like shape, was found patterned burnished. No. 2 is also hand made. It is formed of the same coarse ware as No. 1, but is not covered with white wash, and is roughly comb-faced. It has a flat bottom, globular body, small low neck, small, thin, flat handle springing from brim, and one ledge handle on the body. No. 3 is a specimen of a very common type of cooking pot; the fragments are usually found blackened by smoke. The ware is characteristic, consisting of coarse, dark clay, burning a purplish-black, and containing minute particles of quartz. It appears to be hand made throughout, finger marks appearing even on the symmetrical rim. It has a flat base, globular body, wide mouth, and no handles. Near the rim is incised a potter's mark, of the type often found on fragments of this ware (*see* Pl. 29).

On *Pl.* 24 is found a miscellaneous collection of small vessels and other objects, all hand-made but No. 11, and possibly No. 19. In shape, No. 1 shows a Phœnician influence, and more rightly belongs to the late pre-Israelite period. The method of inserting the top of the handle into the neck of the jar may also be observed in the highly polished wheel turned specimen No. 18, Pl. 31, which was found buried in a large jar of late pre-Israelite type with No. 5, Pl. 31, and No. 6, Pl. 35, both of which are of Phœnician type. It has also the button ornament at the top of a ribbed handle, both features being characteristic of juglets similar to No. 18, Pl. 31. On the other hand, it is made by hand, out of coarse, grey clay, and has the flat bottom characteristic of the earlier period. It was found at a low level at H, but unfortunately we have no note as to whether it was in City I or City II. The similar jug No. 89, Pl. 3, M.M.C., was found in City II, where Phœnician influence begins to be felt, while the somewhat ruder specimen, No. 90 (same plate), which also has a ribbed handle, was found in City I. It seems probable that the type under consideration dates from the very beginning of the second period, when the local styles first begin to feel the foreign influence. Nos. 2, 3, 6, 7, 8, and 9 are minute vessels, having thick sides, and are rudely formed of coarse clay; the handles of Nos. 2, 6, and 8 are broken

away; No. 9 is of black paste, with wide mouth, pinched in by the fingers. Nos. 4 (*see* No. 4, Pl. 20) and 5 are minute pointed bottom juglets, with full bodies; they are of fine, red clay, covered with a red wash, once polished. Several specimens of the curious object No. 10, resembling a pipe head, were found; use uncertain. No. 11 (restored from fragments) is of fine, yellow paste, wheel turned, like the similar bowl No. 7, Pl. 25, and may belong to a like later period. No. 12 is a little object resembling a table with four legs, made of fine yellow clay; a fracture at the top shows that some projection is lost. No. 13 is a small conical object, use unknown, of coarse, red clay, with a hole in the side, and raised ribs irregularly dividing the body into three segments. No. 14 is of coarse red clay, with cylindrical spout, and broken stumps of a handle, which was probably looped over the top. No. 15 is of similar clay and has two broken ear-handles. No. 16 is also of coarse clay, has wide neck, ear-handle, and pointed bottom. No. 17 is a rude juglet with pointed bottom, made out of coarse yellow ware. No. 18 is of fine red ware, with two eyelet loops in the shoulder for suspension. Several fragments of double vessels were found by Petrie at Tell el-Ḥesy. The specimen figured here, No. 19, is about 6 inches high, and is covered with white wash; it is formed of two vases connected by a small hole and joined above by a loop handle; compare with the double vessel No. 18, Pl. 45, where, however, the two divisions are not connected by a hole.

Pl. 25, *Vessels with ledge handles.*—This type of handle is treated in detail in connexion with the next plate. Of the vessels figured on Pl. 25, all but No. 7 appear to be hand made. On No. 1 the ledge handle is found in its simplest form, being hardly more than a knob. This vessel is very rudely made, and has a small spout. Nos. 2 (*see* No. 7, Pl. 20) to 6 are in shape variations of No. 1, Pl. 23. (Nos 2, 4, and 5 are broken at the top, but probably had the characteristic invecked neck.) They are all made of coarse red clay. No. 3 shows the characteristic spout of the period, projecting from under the rim. No. 4 has the cable moulding; it has been scraped over with a pointed stick, making horizontal lines nearly parallel. No. 5 shows the earliest form of painted ornament in crossing stripes, dark red in colour; the neck shows the cable moulding. No. 7 is restored from a fragment of a small bowl made of very fine yellow paste. Contrasting with the hand made types described above, it is wheel turned, and may be later. I have found no marks of the wheel on the earlier were. Petrie states (T. Ḥ., p. 41) that the combed face pottery is usually hand made, though the

brims are wheel turned. It seems curious that the bodies of these large jars should have been laboriously made by hand if the wheel were available. Carefully examining certain symmetrical brims of this type, I found distinct marks of human fingers. Petrie also states that in some cases the pots are all smoothed on the wheel before the notched scraper is used. It seems clear at any rate that these types originated before the wheel was in use.

Pl. 26 contains fifteen examples of the *ledge handles* of this period, all found at Tell eṣ-Ṣâfi, but representative of the types found at other sites. They occur on jars of all sizes, from the minute vessel No. 6, Pl. 25, about 2 inches high, to No. 2, Pl. 23, which is 19 inches high. They range in length from half an inch to about 10 inches. No. 7, Pl. 25, shows a specimen on a small bowl. On the present plate, No. 1 represents the ledge in its simplest form. Nos. 2 and 4 are plain, rounded ledges, with flat surfaces at both top and bottom, projecting horizontally from the jar. In No. 3 the edge of the handle is smooth, but the flat top surface is indented. Nos. 5 and 6 show a break in the middle of the edge, caused by a pinching in by the fingers. Nos. 7–13 (for No. 9, *see* No. 13, Pl. 20) show the various forms of the pinching of the edge, though the top surface remains flat; 12 and 13 are the most elaborate. In Nos. 14 and 15, which are the most common types, the whole surface is bent and pinched in a series of waves. This type of handle is found very rarely after this period. A degenerate form was observed on a Jewish jar at J. The type is unknown in Greece or Cyprus, but Dr. Petrie has found it in Egypt. The name *ledge handle* was adopted by him, after discovering the type at Tell el-Ḥesy. Since finding it in Egypt he has adopted the term "wavy handles," but as many of the Palestine examples are quite plain, we prefer to use the first name, as being more inclusive. Specimens of jars with these handles are figured on Pl. ii of Petrie's "Diospolis Parva." He roughly estimates their range in Egypt to cover two thousand years, the latest examples joining on to the earliest historic pottery of the Ist Dynasty. He believes that the style was brought into Egypt perhaps 6500 B.C. along with an immigration from Palestine. The ledge handles are found only on hard, light brown pottery, almost always containing palm oil, or its cheaper substitute mead. He holds that this same immigration brought in the "comb-facing" (*see* below). An example, dating from the Ist Dynasty, may be seen in Petrie's "Royal Tombs of the Ist Dynasty," I, xxxviii.

On *Pl.* 27 are shown examples of sherds with a combed surface (called

by Petrie "combed facing)," * Nos. 1, 2, 4, 5, and 6, and of sherds with patterned burnishing, Nos. 3, 7, 8, and 9. Of the former, Petrie says : "It (the face) has been smoothed on the outside by scraping it down with a comb or notched edge of wood, and then scraping it around." He quotes an early example that has been rubbed down by the finger after the scraping with the comb, and adds : "Another form of this is where the pot is all smoothed on the wheel, but the notched scraper has still been used, making fine concentric rings. . . . This style (combed-facing) is mostly found in the earliest period ; it extended in use but rarely down to the beginning of the Jewish kings, and was soon entirely extinguished by the Phœnician styles." Fragments of ware with this surface were found at Z, S, and J, but not as commonly as at H. The combed surface occurs chiefly on large jars, as No. 2, Pl. 23 (*see* also No. 92, Pl. 3, M.M.C.), but it is also found on smaller objects. On the examples figured, it will be noticed that rude patterns have been attempted.

The art of burnishing the surface in rude patterns was developed in the earliest times, but lasted into the latest Jewish period. In some cases the burnishing tool is applied directly to the surface of the object, while more commonly the surface is covered with a wash, chiefly red, though yellow and black occur. On the whole the earliest examples, as Petrie has pointed out † show the richest colouring, as well as the highest polish. The earliest patterns are in the form of lines, either in groups, as in No. 7, or crossing, as in Nos. 3 and 8. The spiral appears to have been developed later ; it is found on painted bowls of the late pre-Israelite period (Pl. 35), and the spiral burnishing occurs on bowls of Jewish times (Pl. 55). Sometimes the whole face presents a uniform polished appearance, red, light brown, or yellow.† In these cases microscopic inspection shows that the same narrow burnishing tool has been applied all over the surface. A very high polish is characteristic of the earliest period. In some cases the patterns are burned black on a red wash, as Nos. 1 and 2, Pl. 55. Few specimens of burnished vessels belonging to the earliest period were found whole, but No. 83, Pl. 3, M.M.C., shows a jar fairly well preserved, with burnishing in crossing lines. During this period this style is found chiefly on the following kinds of vessel : (1) Large flat trays with brims thickening on the inside, like the fragment

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* Petrie, T.H., p. 41. † *Ibid.*, p. 42.

No. 7, Pl. 27, which had originally a diameter of 22½ inches; a similar tray, with a diameter of 4 feet, was found at H, fixed in a bed of mud, it was probably used for baking bread, the dough being flattened out and covered with hot embers, in the manner still in use by the Bedawîn. (2) Bowls with brims thickening inwards and burnished within, of this period only fragments were found (*see* T.Ḥ., Nos. 55–77, Pl. vi), but the style came down to Jewish times. (Nos. 1 and 2, Pl. 55, are specimens of the later period.) During the late pre-Israelite period the patterned burnishing was extended to a variety of vessels, including the juglets with pointed or rounded base (Pl. 32), and the painted ware (Pls. 36–42). In Jewish times it had the same wide application, extending even to the minute black juglets, Nos. 18–21, Pl. 53.

Pl. 28 shows the mouldings characteristic of this period, with other incised markings and raised patterns. The most common moulding is the cable-moulding, usually found on the necks of large jars. (*See* No. 1, Pl. 23, Nos. 4 and 5, Pl. 25.) In its simplest form it consists of a narrow raised band, with a row of incised lines, vertical as in Nos. 4 and 5, or tilted as in Nos. 1, 6, and 19. Sometimes the lines are double, as in Nos. 2 and 7. This cable-moulding becomes more elaborate in Nos. 11, 12, 13, 15, and 17, and in No. 9 is developed into a pattern. Zigzag incisions on a plain surface may be seen on Nos. 3 and 16, and incised crossing lines on the raised band No. 8. Nos. 14 and 18 are specimens of raised patterns.

On *Pl.* 29 are found specimens of the marks, probably potters' marks, found on fragments of coarse ware, usually blackened as if by smoke. Of such ware is the cooking pot, No. 3, Pl. 23, where a similar mark is found near the rim. These marks were the most common at H, though found at other sites in the lowest stratum. They were roughly incised on the vessels before baking. They range in character from mere dots or lines, single or in groups, to more elaborate patterns.* Nos. 29, 36, and 37 bear a certain resemblance to the old Hebrew letters *tau*, *shîn*, and *rēsh* respectively, but as the rest of the signs are purely arbitrary, and as

* Compare these marks with the Egyptian potters' marks figured on Pls. XLVII–LVIII of Petrie's "Royal Tombs of the Ist Dynasty." The similarity of many of the marks is interesting in view of the fact that the ledge handles and comb-facing are common to both countries. Compare especially the Palestine examples, 28 with the Egyptian Nos. 1323–1330; 32 with 1170; 29 with 1405–1414; and 33 with 993.

the ware antedates the earliest known forms of Phœnician writing, this resemblance is perhaps accidental. No. 42 appears to represent the ancient device called by the modern Jews, "Solomon's Seal."

As mentioned early in this chapter, much remains to be learned in regard to the shapes of the pottery of this period. The types now known are shown on Pls. 23–25. From fragments found we infer that other shapes include: (1) Large jars with handles of the ordinary type (semi-oval rather than semi-circular) in contrast with the ledge handles. (2) Large vessels with straight sides and wide mouths of the type that survived into Jewish times (*see* Pl. 51). (3) Large flat trays, patterned-burnished (for fragments see No. 7, Pl. 27). (4) Thick brimmed bowls, patterned-burnished within.

Lamps have not been found at any site with the pottery of this period.

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Note on ledge handles and mouldings.—The rude vessel (No. 1, Pl. 25) is very interesting, as it illustrates the inception of the ledge handle, and explains one of its most perplexing characteristics. The ledge handles in this example have been formed by impressing the thumb and forefinger on the sides of the vessel while the clay was wet, and pinching it with a slight downward motion of the hand. This naturally makes two finger marks, with a small projecting shelf of clay pressed out beneath each. The ledge handle is a development of this projecting shelf. The original projection, being fitted to the surface of the fingers, was concave on the upper surface: and this characteristic persists to the last, in spite of the obvious convenience for grasping which a downward concavity would have presented. As to the cord-mouldings on Pl. 28 and elsewhere, they are clearly a translation into pottery (for decorative purposes) of the cords with which sun-baked pottery was tied together to prevent its breaking while wet.

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CHAPTER III.

POTTERY: LATE PRE-ISRAELITE PERIOD.

(Pls. 30–48.)

This is the period during which Mykenæan and Phœnician influence appears in the pottery of Southern Palestine. As stated in Part II, Chap. I (p. 72 sq.), it takes its name from the date of the origin of the types, not long before the Hebrew conquest, though the types lasted into the earlier half of the Jewish monarchy.

On *Pl.* 30 are found specimens of the large jars and jugs. They are made of brown or red clay, finer than the clay of the large jars of the earlier period, but in some cases the surface is rough. Like all the pottery after the first period, they are wheel-turned. The types 1 to 6 are classed by Petrie with Phœnician pottery. We would suggest that they are local imitations, as the importation of large common jars to a country possessed of local potters would appear to be unlikely. Nos. 1 and 2 are the ordinary types of large water jars, characterized by a pointed base. This type survived into Jewish time, when the rounded base is more common (*see* No. 2, Pl. 49). No. 1 has two handles, and is decorated with three bands of red and black round the neck and shoulders. No. 2 has four handles. For an example of how these jars were purposely buried with smaller vessels, *see* Pl. 82. No. 6 is a smaller jar of the same general type, but with a single handle, and with neck more decidedly invecked. For stands to hold these jars upright, *see* Nos. 11, 13, 20, 21, etc., Pl. 45. Nos. 3 (*see* No. 9, Pl. 20), 4, and 5 are graceful water jugs with the curved lip characteristic of Cypriote ware; Nos. 3 and 4 have the base pointed; No. 5 the base flat. The rude, long jar, No. 7, with body slightly expanding at the top and very thick sides, is probably of comparatively late date, as it was found immediately below a Jewish stratum.

On *Pl.* 31 are grouped a series of vases, showing Mykenæan or Phœnician influence, some of which may be imports.* Nos. 1, 3 (*see* Nos. 5

* On this subject we have consulted Petrie's "Tell el-Ḥesy" and the "Influence of Ægean Civilization in Southern Palestine," by Mr. F. B. Welch (*Q.S.*, 1900 p. 342), who visited the camp while we were at work, and later examined the pottery in the Jerusalem museum.

and 8, Pl. 20), 4, 8, and 19, selected for illustration from the Tell el-Ḥesy collection on account of their excellent preservation, represent types common to all the sites where a late pre-Israelite stratum occurs.

Nos. 1, 8, and 9 are of a type common in Egypt during the XVIIIth Dynasty, and found in Cyprus after the downfall of the Mykenæan civilization. In Palestine they begin to appear about 1400 B.C. They are characterized by a round or oval body, low foot, long cylindrical neck (sometimes crooked as in No. 8, a feature also found in Cyprus), expanding mouth, and often by a ridge or collar running round the neck, to which the handle is joined, as in No. 8 (*cf.* Nos. 10, 11, and 15). The ware is thin and light, the clay being sometimes black, burning red, sometimes red. No. 1 has a thin, broad, flat handle. No. 9 is covered with a black wash, on which is a rude ornament in white paint. No. 15 has no foot, but shows the characteristic neck, mouth and collar; the body consists of two partial hemispheres placed together so as to form a distinct edge. No. 10 is of the same general type; it has no foot, the base being flat. It was found near the rock at Z, in a stratum characterized by the earliest ware of this period (about the fifteenth century B.C.). It is made of fine reddish paste, covered with a wash of warm chocolate-brown, burnished up to the collar with a sharp-pointed tool in fine contiguous lines, producing on this part a uniform polish; this polish appears again on the rim. Round the body is painted a broad band in red, with two narrow black stripes above and below it respectively. Round the collar is a black stripe, winding spirally. Of similar technique is the vase No. 11, whose high polish is produced by a similar tool used vertically on the lower part; on the side opposite the handle there is an ornament consisting of four concentric black rings,* and running round the body below the handle are five black lines; lines of black paint appear on the handle, on the lip, at the base of the mouth, and on the collar. This specimen was found at J, where late pre-Israelite ware was very rare. Almost identical specimens are found in Cyprus from 800 to 500 B.C. On the other hand, its resemblance to No. 10 should be noted. Accordingly, it is an open question whether it belongs to the Palestine pre-Israelite ware, or whether it was imported from Cyprus in a late Jewish period. No. 12 also comes from J, and appears to be of same date and *provenance*. It is of dark brown ware,

* Concentric rings form a very common feature of Cypriote pottery.

burnished, and ornamented with five horizontal brown lines, of which the top and bottom are marked with an incised zigzag.

No. 17 is a pointed-bottom juglet of reddish clay, trimmed towards the base with a knife. This type in greenish clay is commonly found with Mykenæan ware in Cyprus, and specimens in greenish ware were found at H. Welch points out that the exact counterpart of the closed bird-headed toy rattle, containing pellets, No. 13 (figured also in M.M.C., No. 175, Pl. 4), with two holes near the top, and painted design, occurs with the Mykenæan find at Enkome, Cyprus. The larger pointed-bottom juglets, Nos. 3, 4, and 5, are wheel-turned in the ordinary manner; Nos. 3 and 5 are closely burnished, producing a polish which is high in the case of No. 5. These are the prototypes of the jugs on Pl. 32, and appear to be of local make, though the type is classed by Petrie with Phœnician pottery. How far Phœnician and Mykenæan influences interacted is yet to be determined. No. 18 has the same high polish as No. 5, and was found deposited with the latter, and with No. 6, Pl. 35 (all of the same technique) in a large jar of Phœnician form. The insertion of the upper part of the handle in the neck of the jar is a common feature in polished jars of this period. It is found in two groups of pottery brought to Jerusalem for sale.

Welch sees the influence of Mykenæan vessels in the stamnos with three small handles, No. 14 (M M.C., No. 179); this form occurs in Egypt not later than 1200 B.C., where it is classed by Petrie with Phœnician pottery. No. 16 was found with No. 14; it is classed by Welch with sub-Mykenæan types. Welch notes the same Mykenæan influence in the form of the painted vases, Nos. 2–6, Pl. 43. The painted bowl, No. 19, with peculiar "wish-bone" handle projecting horizontally from the body, is of a type well known in Phœnicia and Cyprus; in the latter place it is found earlier than 2000 B.C., but does not come down to Græco-Phœnician times. The Palestine examples begin to appear as early as 1400 B.C., but come down to the Jewish monarchy. Judging by the technique, Welch regards these to be a local imitation of Cypriote styles. They are of fine dark clay; the pattern is usually carelessly painted in brown on a greenish-grey wash. As to the origin of the pattern, Petrie suggests an imitation of the stitching on a skin bowl ("Tell el-Ḥesy," pp. 45, 46). In late times the handle appears in a coarse form, hollow, with circular end (*see* "Excavations at Jerusalem," 1894–97, No. 12, Pl. XXV). The small spouted jug on ring-base, No. 7, suggests Phœnician influence; on the body are three lines painted in

chocolate. Nos. 2 and 6 appear to be local types, though No. 6 may be influenced by the pilgrim-bottle found in Greece, Egypt, and the Levant. No. 2 is of red paste, and has a strainer spout in the side of the body. A strainer spout occurs on the painted jar (Pl. 44), and is a common feature in the period as proved by many fragments.

Fig. 34 shows a selection of fragments of vases (commonest at Tell eṣ-Ṣâfi) which were probably direct Mykenæan imports, as they show the characteristic glaze and patterns. No whole vessels of this ware were found at any site. The indications of colour in this figure are the same as those adopted on Pl. 36, which see.

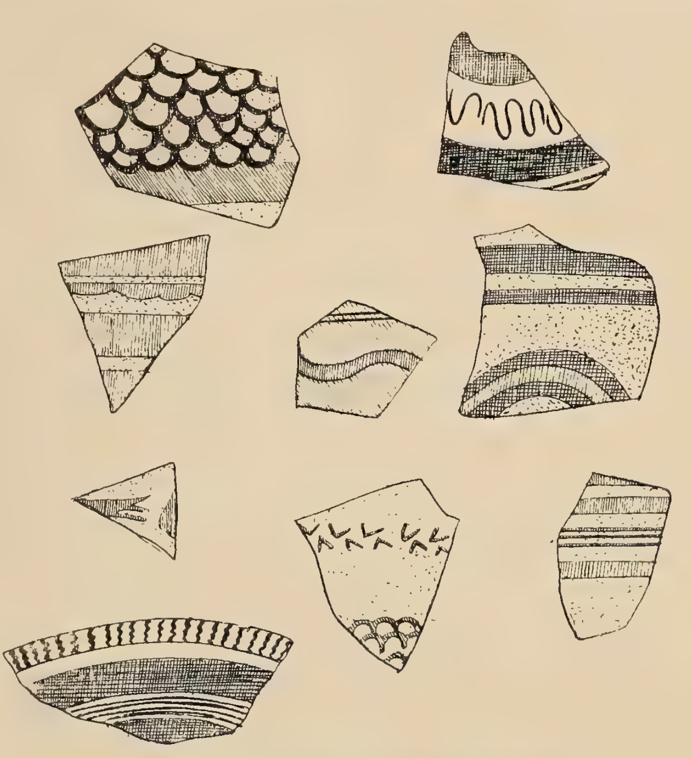


FIG. 34. FRAGMENTS OF MYKENÆAN WARE.

Pl. 32 shows a selection from a large number of small jugs common in all the sites, mainly of reddish clay, and usually pattern-burnished. These begin to appear in late pre-Israelite times, and extend with little variation into a late Jewish period (Nos. 7, 10, 14, and 15 are examples of the latter period inserted for comparison). They belong to the same class with the larger and more elongated forms Nos. 3 to 5, Pl. 31. They show the influence of similar Phœnician juglets in light grey or olive-grey ware, of which some examples were found at H (Tell el-Ḥesy, Nos. 139, 142 and 143, Pl. viii). The majority are wheel-turned, but some appear to be hand made. In some of the later wheel-turned specimens the base has been rudely rounded by hand. In some cases the burnishing is on a red wash (very rich in earlier examples), in others the tool is applied directly to the surface of the juglet. Nos. 6, 7, 10, etc., have no spout ; in No. 2 the spout is slight ; in Nos. 4, 11, etc., well defined. No. 7 (*see* No. 12,

Pl. 21) is faintly ribbed. The base of No. 13 is pierced to form a strainer The most elegant form is the early example No. 1 (*see* No. 12, Pl. 20), with pointed bottom and with handle looped up above the level of the rim. The pointed base seems to be characteristic of the earlier appearance of this form, though this sort of looped handle may be seen on No. 10, which dates from late Jewish times. From a careful study of numerous specimens, we conclude that while the ruder forms are found in both periods, the more elegant shapes, as well as the high polish, did not survive to late Jewish times.

Pl. 33.—Nos. 1, 2, 3 (*see* No. 15, Pl. 20), and 4 are cooking pots, prototypes of the Jewish forms seen in Pl. 54, but not so globular as the latter, and with wider mouths. They are made of dark purplish ware, and are usually found blackened with smoke. They have two handles, springing from a moulded rim, and a base slightly rounded, but not so as to prevent their standing. Nos. 5 and 6 are bowls restored from fragments; No. 5 has moulded rim and ring-base; No. 6 has broad flat base. The bowls 7 to 10 and the cup 12 were all found near each other, practically on the rock, at Z, and hence date very early in this period. Judged by the general similarity of technique, the rest of the objects on this plate (with possibly the exception of No. 6) appear to date from the same time. The bowls 7 to 10 are made of coarse, dark gritty clay. All have moulded rims. No. 7 has a ring base; the bases of Nos. 8 (*see* No. 16, Pl. 20) and 9 are rounded, while No. 10 is sharply pointed. The vessel No. 11 has a strainer-spout and a round hole in its base; it apparently was used for filtering a liquid poured through the strainer, and running through the hole into another vessel below. No. 12 is a cup with wide mouth, slight spout, and flat base.

Pl. 34 shows a selection of the small, unpainted bowls, without handles, which originated early in this period, but lasted into late Jewish times. They are made of rather coarse red or drab ware, and have, as a rule, either flat or ring bases. The simplest forms are Nos. 3 and 4, with almost straight sides, and Nos. 1 and 2, with simply curved sides. In Nos. 5 and 6 the curve, though more elaborate, is unbroken. In Nos. 7 to 16 the curve is broken by a distinct edge near the top, as in examples 7 and 8, or half way down the body, as in Nos. 10 and 15 (*see* No. 1, Pl. 20). In Nos. 7 and 16 the upper part curves inwards. These types of bowls are often associated with lamps in pottery deposits (*see* Pl. 82). No. 17 is a small saucer resting on two

stump feet. No. 18 is a very minute plate. No. 19 is a bowl with rounded base and recurved side.

Pl. 35.—Bowl No. 6 has been noticed above in connexion with No. 5, Pl. 31. The rest of the bowls on this plate show Mykenæan influence (*see* specimens on Pl. XXIV, Schliemann's "Tiryns"). They are made of fine light red paste, wheel-turned, but owing to their thinness have been sometimes distorted while drying in the sun previous to baking. They are characterized by loop-handles, fixed in almost vertically to the side of the bowl, as in No. 5; horizontally, as in No. 7; at half a right angle as in No. 4; or projecting vertically from the bowl, as in No. 9. They usually have a ring-base. They are often decorated with dull black and red lines, both within and without; in Nos. 4 and 11 the handles have dabs of colour; and all but Nos. 1, 3, and 11 have a spiral within the base of the bowl, as indicated in No. 9. This painting is more usually applied to the rough surface, but bowls 10 and 11 have been first covered with a greenish wash. On these two specimens, besides the ordinary straight lines, are found rude patterns, consisting in No. 10 of two spirals, and on No. 11 (*see* No. 11, Pl. 20) of two spirals, zigzag lines, etc.

Pls. 36–42* are the result of a systematic examination of all the sherds displaying coloured decoration found in the strata associated with the pre-Israelite period. About five hundred examples were collected and classified; duplicates and fragmentary examples being rejected, the one hundred and seventy here drawn remained as being the most characteristic illustrations of the various types.

In Mr. Welch's paper on the "Influence of Ægean Civilisation on South Palestine," a brief reference is made to the native painted ware of the pre-Israelite period, with a short description of its general characteristics. From the specimens illustrated in the plates it is possible to amplify and extend Mr. Welch's descriptions and conclusions.

The following is an attempt to classify the peculiarities and motives of this hitherto undescribed branch of ancient art:—

(1) Period.—The lowest strata, both at Tell eṣ-Ṣâfi and at Tell ej-Judeideh—the most ancient débris examined in the recent excavations—yielded specimens of painted ware, but they were few in number and rough in execution. It is noteworthy that some of the classes of patterns were

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* Originally written as a separate article by Mr. Macalister.

found fully developed in this early period (Nos. 1, 6); while other patterns were of a more tentative description, which apparently never developed into anything. The art probably reached its highest point just before the period of the Jewish immigration. The most numerous, varied, and elaborate specimens by far came from Tell eṣ-Ṣafi. Tell ej-Judeideh, which contained no débris of the late pre-Israelite period, showed no examples of the best development of the art. After the period of the Jewish immigration, painted pottery of the type under description disappears from the strata.

(2) Technique.—This is thus described by Mr. Welch: "The pieces found are chiefly bits of large bowls with thick nearly vertical sides. There are two main classes—a finer, very homogeneous class in fine grey clay, burning red, on which a dull white wash is applied; on this designs are drawn in dull black, and a dull cherry-red is used for subsidiary purposes. . . . . The second class is of much coarser make, with white or reddish-white wash, and very carelessly drawn designs in light reds and browns."

Mr. Welch treats these two classes separately, and seems inclined to regard them as of different *provenances*, the first having Græco-Phœnician analogues, the second being wholly native. That the two classes exist (as well as others, if a finer subdivision were called for) is indisputable; but the patterns are identical in both. With the single exception of the peculiar bird, all the patterns found on the black-figured ware occur also on the red-figured sherds. If a difference in origin be considered necessary, I should regard the first as of imported design, the second as native imitation of the same designs; but to my eye there are no differences that cannot be fully accounted for by the relative superiority or inferiority of the artists, their colours, and their clay. The following is the description which I should offer, after an examination of about 500 specimens:— The ware is of all shades, from a close-grained hard homogeneous type to a gritty, porous, brittle type. The surface is either left alone, or prepared for painting with a wash, which is in the majority of cases a dirty buff colour, though sometimes almost white, and occasionally light brick-red or brown. A burnished surface is rare. The vessels are of all shapes and sizes, and the sherds of various degrees of curvature. A fairly common type must have been the globular jug (Pl. 44), but only this one example was found entire.

The colours used for the patterns are black, dark Indian red, light yellow, white, purple, vermilion, crimson, brown, and grey; the first two

being by far the commonest, the others only occurring occasionally. These colours, so far as practicable, are represented in the drawings by methods analogous to the "tricking" used in heraldry, but it is impossible to reproduce the difference between shades of the same colour. A selection of specimens coloured to the original shades is grouped on the frontispiece of this volume.

(3) PATTERNS.—The classification adopted in the drawings is as follows:—

(*a*) *Dots.*—Of surfaces ornamented with dots only a single example was found in the whole 500 (†No. 7),* though they occasionally (not often) enter as an element in composite patterns.

(*b*) *Line Motives.*—These fall into the following sub-classes:—(i) Plain parallel (Nos. 8, 9) or random lines (No. 10, and the vessels Nos. 3, 7, Pl. 43). No. 11 is the bottom of a bowl. (ii) Zigzag patterns,—Zigzags are found (*a*) alone (without other lines), singly (Nos. 12, 13), double (Nos. 14, 15), triple (No. 18), or quadruple (Nos. 19, 20); generally parallel, but sometimes diverging from a common point (Nos. 17, 18); or (*b*) between straight lines, singly (Nos. 21, 22), double (Nos. 29, 30), triple (No. 36) or quadruple (Nos. 41, 42). The straight lines are either single or multiple (Nos. 24, etc.). I would suggest the name "panelled zigzag pattern" for the combination of zigzags and straight lines. Not infrequently the zigzags are red, while the lines are black (No. 34), once or twice white (†No. 37); and the pattern sometimes degenerates into rows of parallel lines of alternate colour (Nos. 28, 35). Panelled zigzags are usually vertical, but may be horizontal (No. 26) (iii) Ladder patterns.—These, as their name implies, consist of parallel lines (vertical or, more rarely, horizontal) with short lines crossing them at right angles (No. 52) or, less frequently, obliquely (No. 56). The ladders may be single or multiple. The "rungs" in double ladders are sometimes made to slope opposite ways, giving a herring-bone effect (a vegetable origin may possibly be sought for this latter pattern (No. 57)). In this case the centre line is frequently suppressed, so that we are left with a single ladder having V or Λ-shaped "rungs" (No. 58). Sometimes two sets of "rungs" are used in one ladder, sloping opposite ways—giving a fret (Nos. 61, †63). (iv) Fret patterns.—These consist of

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* The reference numbers are to the figures on Pls. 36–42. Those marked † are repeated in the frontispiece in colours.

diagonal lines crossing in opposite directions. There are few opportunities for variety in this class: some times alternate "lozenges" are filled with colour. Occasionally the lines sloping in one direction are of different colour from those crossing them (No. 67). (v) Chequer patterns —These are formed by the crossing of vertical and horizontal lines. Alternate squares are filled in with colour—generally roughly. Sometimes alternate colours are used in filling the squares, but I found no examples of the use of diverse colours in the bounding lines (Nos. 69, †70, 71).* (vi) Lozenge and triangle patterns.—These call for little remark, though there is a considerable variety of them. The space inside lozenges is generally filled with a fret (Nos. 72–91). (vii) There remains a few examples of the use of what may be called "Vertebra lines," *i.e.*, lines with little thorns along them formed by dabs of a fine brush. There is not a sufficient number of these to classify them more minutely. In one example the "thorns" were of different colour from the principal line (Nos. 92–95).

(*c*) *Curve Motives.*—Of these there are the following sub-classes:—(i) Far the most important, spiral patterns. These vary in the treatment of the eye and of the free end of the spiral line. The eye may be plain (No. 96), or have a nucleus consisting of a small nodule (No. 101), or a larger nodule filled with colour (No. 107), sometimes different from that of the spiral line (No. 108). We also find a flat plain pendant (once only, No. 111), or a circle containing a figure like the cross, commonly, though erroneously, called Maltese (No. 115). Invariably the cross is outlined in black, and often *two* (never more) arms are filled with red. In one curious example the nucleus was found treated florally (No. 110). The free end may run off to a point (No. 104), or may return and join the last whorl tangentially (Nos. 98, etc.), making the whole figure circular: this latter is common on the bottom of bowls. Occasionally the last whorl bifurcates and develops into two external whorls (No. 115), the free ends of which are prolonged into an ear (as in the jar already mentioned, Pl. 44). This produces a false appearance of elaboration, as though two spirals were coiled together (like the "trumpet pattern" of early Irish Christian art). One example was found of the free end terminating in a loop (No. 100). Half spirals, resembling concentric semi-circles, are very common (Nos. 114, 120), but the degeneration of the spiral into a series of concentric circles is rare (No. 117). (ii) Scale patterns

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* See note, p. 91.

are few in number and call for no special remark (Nos. 121–124). (iii) There is a type of scale-pattern, for which I can find no more convenient name than the "nub" pattern—*nub* being the popular vocalization of the Egyptian syllabic sign , which it much resembles It is rarely found but shows itself capable of considerable decorative effect, as appears in the selected examples (Nos. 125–127).

(*d*) *Natural Motives.*—Mr. Welch has remarked on the curious fact that animal figures are found in red, bird figures in black. This is *almost* universally true; there is one black animal figure from Tell Zakarîya (No. 133), and one red bird from Tell eṣ-Ṣâfi (No. 141), but it is not of the usual bird type. The animals are always very rudely executed. Two sherds represent goats, in the one case feeding, in the other suckling their young (†Nos. 131, 132).* It is not quite correct to describe these as "very common," however; I did not find more than ten animal figures in the whole series of sherds examined. Of the very singular bird figure a good example is to be seen on the jar (Pl. 44). One sherd represents a nondescript object that may be a tree (it resembles the tree on which the goats in the sherd just referred to are feeding), but from two extra appendages that do not appear in the latter example, I am inclined to regard it as a figure of an octopus (No. 142).

There remain a few patterns, chiefly linear, which cannot be brought with certainty into any of the above classes. Some are mere fragments, which would probably have been more intelligible if larger sherds had survived (Nos. 152–155).

In *Pl.* 42 are given a few examples illustrating the combination of these simple patterns into composite decorations. The disposition of simple or composite decorations over the surface of the vessel to be ornamented is not easy to determine, owing to the fragmentary nature of the available material. But from a comparison of examples, we are enabled to deduce the following conclusions:—

The vessel to be decorated might be either partly plain or entirely covered with ornament; the great majority of coloured vessels belonging to the first of these divisions. When a vessel was entirely covered, its decoration consisted of random lines, or an extended fret, usually very roughly executed. When a vessel was partially plain, its decoration was

* *See* note, p. 91.

confined to one or more of the following portions:—(*a*) Under side of base.—Usually a spiral with the last whorl forming a circle. (*b*) Upper side of base, in wide bowls.—Either a similar spiral, or a cruciform pattern spreading over the whole inside of the vessel, generally founded on the panelled zigzag pattern. (*c*) The handle.—A central line down the back, with subsidiary lines crossing it in various directions. (*d*) The spout, if any.—Usually plain lines; in one curious example a circle containing a "Maltese cross." (*e*) The rim and lip.—A plain band of colour; or, when the lip was wide enough, a continuous pattern, such as a fret. (*f*) The body of the vessel.—The simplest method of ornamenting this would be the painting single lines of one or more colours encircling the vessel at various intervals (occasionally accentuating mouldings in changes of curvature). But the favourite method seems to be that followed in the large jar that has already been referred to more than once. Here a band is marked out a little below the shoulder by groups of lines, usually red. Between these lines vertical lines are drawn, dividing the space, as Mr. Welch says, into metopes. The dividing lines may be vertical strokes, or zigzags, or panelled zigzags, or frets, or any other definable linear pattern. Between them is painted a spiral, or a bird, or a lozenge; or, occasionally, the blank space is simply painted as a square block of some other colour. Unfortunately, none of the sherds showing animal figures are large enough to enable us to determine whether single figures or processions of animals were represented; no evidence was found that more than one bird figure was ever painted on the vases. Another method of elaborating the band of colour seems to have been filling it with a series of spirals with projecting ears formed by the prolongation of the free end of the spiral; the ears of each spiral touch the next spiral to the series, and the space between is filled usually with a zigzag.

Analogous Types of Decoration.—The art just described does not bear exact comparison with any other ancient system of the Mediterranean area. The spirals perhaps suggest Ægean or Mykenæan analogies, but the analogy is not borne out when both the presence and absence of other motives are taken into consideration. On the whole, perhaps the remains most nearly approximating to these are the painted sherds found by M. Chantre,* in Cappadocia (the comparison has already been suggested

* Ernest Chantre, "Mission en Cappadocé, 1893–1894." Paris, 1898.

by Colonel Conder in *Q.S.*, 1900, p. 78). But the differences are really more obvious than the resemblances, as will become evident by a detailed examination of M. Chantre's coloured plates. Thus on Plate III are six sherds of painted ware from Boghaz Keui (the others figured are moulded as well, which puts them outside the present consideration). Here I find rows of lozenges containing frets, common in the pre-Israelite ware, but also concentric circles, very rare in Palestine, and a rectangle with chequered border, which is like nothing that occurred in the specimens I examined. The specimens from Kara Euyuk are even more unlike the Palestinian sherds. One of these shows a "Maltese cross" (Chantre, Pl. XI, 3), but not associated with any circular ornament. Another (Pl. XI, 2) has spirals, but they are arranged in a diaper. Fig. 1, on the same plate, shows an animal, but it does not greatly resemble the rude animals of Palestine. On Plate XII are found lozenges containing frets, but they are arranged in a diaper, not in a single row, as is invariably the case in Palestinian work; there also appear on this plate examples of zigzags formed of multiple lines which, too, is unexampled in Palestine. One sherd was found resembling the small fragment XIV, 2, but this was strikingly different in several respects from the sherds with which it was associated (it is represented in No. 152). The animal (XIV, 7) is obviously different in every detail from the animals found in the Palestinian sherds. On the whole, it appears that the art of early "Pre-Israelite" pottery painting has no very close analogues in the parallel art of contemporary races.

On *Pl.* 43 are shown some vessels, all from Z, with the colour decoration described above. Nos. 1 and 4 are of one type—long oval body with cylindrical neck slightly expanding at mouth, and two handles, semi-circular in No. 1 (*see* No. 2, Pl. 20). A curious button-foot is found in No. 1; No. 4 terminates in a point. They are made of fine drab paste; No. 1 is ornamented in dark purplish-brown with broad, narrow bands, and the characteristic zigzag pattern (*see* Nos. 12–50, Pls. 37, 38). No. 4 has bands of red colour and the fret pattern (*see* No. 66, Pl. 38). The shapes 2 (*see* No. 6, Pl. 20), 3, 5 and 6 show a Mykenæan influence. They have sloping sides, rounded bases, short neck, large mouths, and two small handles, projecting at about half a right angle. The handles figured are all of the semi-disc type with slight perforation, but regular loop handles occur in similar vessels. The decoration is in red bands and zigzags, sometimes on a red wash. The imperfect specimen No. 7 is painted in

very rude red lines. This sheet includes No. 8, which belongs to the series of pointed bottom juglets, Pl. 32, and the pan-shaped vessel No. 9 with pointed spout.

The elaborately but rudely-painted jar, *Pl.* 44, was found broken, but the fragments were collected and glued together, so that we now have the entire vessel (*see* No. 3, Pl. 20), except the rim and most of the handle. In its present state it is 8⅝ inches high; it is made of buff ware. The vessel is globular on a ring-base, with strainer spout containing thirteen holes. The handle, which is not opposite to the spout, but a quadrant round from it, must have joined the rim, as there is no fracture in the body of the jar below. The painting is red and black on a rudely-applied white wash. The ornament in order from bottom to top consists, first, of four horizontal red lines; second, a broad band with a bird of the type shown in Nos. 134–141, Pl. 41, placed opposite the spout and flanked by upright lines, semi-circles and spirals, the latter enclosing a sort of Maltese cross (*see* Nos. 160, 163, Pl. 42), all in black; third, three red lines; fourth, a belt, consisting of concentric semi-circles in black (necessarily distorted in the projection of the ornament), and fifth, a red band round the neck. The rim of the spout is painted red, and on its surface are two lines, one red, the other black. This jar was found at Tell eṣ-Ṣâfi, at about the level of the supposed "high place" (*see* pp. 32, 35), at a depth of about 20 feet.

Pl. 45. *Miscellaneous Objects.*—No. 1 appears to be a toy in the shape of a minute vase, but solid throughout. No. 2 is a strainer in rough red ware; the rim and handle are broken away. Nos. 3, 8, and 16 are children's rattles containing pellets; the simplest form, No. 3, is closed at both ends; 8 and 16 are pierced at the ends with holes. One end of No. 8 is partly daubed with white paint, at the other end the paint is so placed that the red surface showing through presents a cross-like ornament; the body of No. 16 (*see* No. 10, Pl. 20) is well moulded; similar shapes were found at H. No. 4 is a cup on invecked solid stand with flat bottom; a more common specimen of this general type is the fragment No. 17, where the stand is hollow. No. 1, Pl. 53, is a later specimen, showing the trumpet-shaped base; this is drawn on a Jewish plate, as it was found in a Jewish stratum, but the type was commoner in pre-Israelite times, when fragments of large vessels of similar design are found. This same trumpet foot may be seen on the coloured vases Nos. 1 and 2, Pl. 52, where, however, the vases themselves have not got the cup

shape. No. 5 is a thin, flat, rudely rectangular piece of pottery, turned up at one of the long ends and resting on four feet, only the stumps of which remain; in form it resembles a head-rest, and may possibly have been used to support the head of an infant, as it is only 4 inches long; the flat part is decorated with red dots of paint, arranged in a lozenge pattern, and the back is painted in lines of red, black, white, and yellow; a fragment of a similar object, turned up at the short end, was also found. No. 6 is a sherd roughly indented, but not pierced through, with minute holes; it suggests a grater. The nondescript fragment No. 7 has a square, flat projection and two perforations, one on each side of the stump of the handle. No. 9 is the fragment of a lamp-stand in red ware with buff wash, closely burnished with ribbing in the upper part; the decoration consists of lines of light brown and sienna. No. 10 is a small fragment of a cylindrical vessel with square or rectangular mouth cut in the rounded side; one ear or loop for suspension occurs in the portion of the rim that is left. Nos. 11, 13, 14, 15, 20, and 21 are hollow stands* for large jars with pointed or rounded bottoms; in all but No. 11, one or both of the rims are moulded—elaborately in the case of No. 20; the forms with sloping sides, Nos. 14 and 21, are found with pottery of the XIth Dynasty in Egypt (*see* Petrie's "Dendereh," Pl. XVII, Nos. 120 and 125); a stand, similar to No. 13, was found with the Seleucidan ware at S. No. 12 is a minute cup; No. 18 is a fragment of a double vessel, but the two parts are not connected by a hole, as in the case in No. 19, Pl. 24. No. 19 is a fragment of a shuttle-shaped object, with perforation at one end.

Pl. 46. *Miscellaneous Objects.*—No. 1 is the fragment of the top of a vessel, shaped like a box, with straight sides; the square or rectangular mouth appears to have been closed by a valve lid; the latter rotated on projecting horns, let into circular sockets, one of which remains: only the stumps of this handle are preserved: it was found at Z, at a depth of 3 feet, where the soil was much disturbed, and may belong to any period. No. 2 is a fragment of a pyxis, ornamented with red lines. No. 3 is the base of a vessel

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* Terra-cotta cylinders, 10 inches high, similar to these "stands," were found by M. Place in several rooms at Khorsabad (*see* Perrot and Chipiez, "History of Art in Chaldea and Assyria." Vol. I, p. 184, figs. 62–65). He argues that these had fallen in from the roof, of which he assumes they once formed an integral part, designed to let in air and light.

on three stump feet: Nos. 4 and 5 are minute cups. Nos. 6 and 7 may be conveniently called "cups and saucers," as this type consists of a semi-circular bowl, with rounded base, and with a very slight spout, and containing a small cup, connected with the saucer by a small hole at the bottom opposite the lip; the vessel is not a lamp, the spout being too slight for a neck, and never found blackened; in M.M.C. (p. 84) it is suggested that the vessel is a stand for juglets of the pointed bottom order—the water oozing from the porous juglet could escape into the saucer through the hole and then be poured off at the lip; two of these vessels may be seen in a group of early ware in Fig. 174, M.M.C., with the rounded lamps and a pointed bottom juglet; the cups and saucers, according to Welch, are common in Cyprus at a much later date, *circa* ninth–seventh centuries B.C., never being found with the pointed juglets; whole specimens occurred only at H, but fragments were found in the late pre-Israelite stratum at S. No. 9 is a fragment of a strainer-saucer in polished red ware, with one row of holes in the side and at least one in the base, nearly all of which is broken away. Fig. 35 represents a bottle-filler found at Z. Fig. 36 is a fragment of porous white pottery with ornament in black, from Z. The fragment of a bowl from the same site (Fig. 37), covered with a fine green glaze, is probably Egyptian.

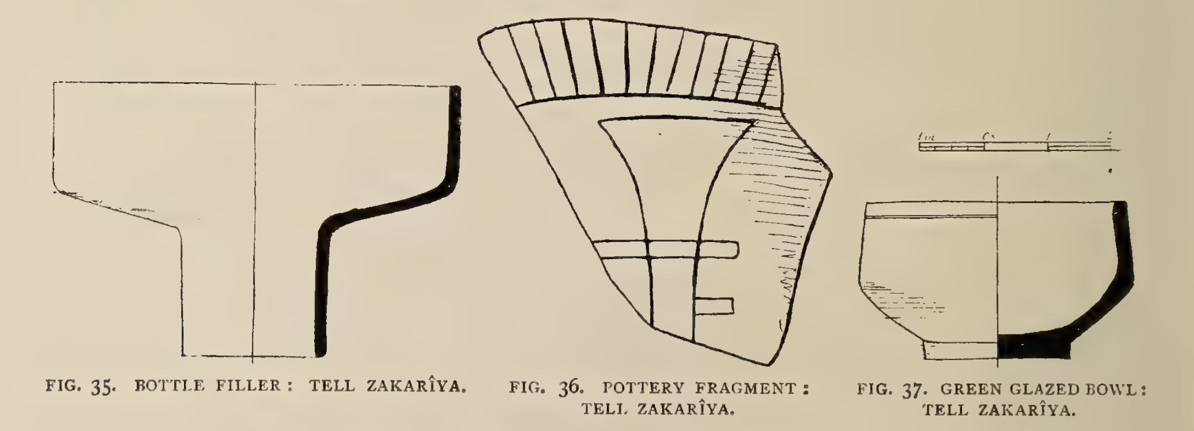


FIG. 35. BOTTLE FILLER: TELL ZAKARÎYA. FIG. 36. POTTERY FRAGMENT: TELL ZAKARÎYA. FIG. 37. GREEN GLAZED BOWL: TELL ZAKARÎYA.

Pl. 47. The unique vessel figured in this plate was found at Tell eṣ-Ṣâfi, immediately above the supposed "high place" (*see* pp. 32–35). It is made of red clay, the body being rudely formed on the wheel. Its shape is that of a drum, with concave side, set on a low dish, with a distinct edge between the two parts. The foot is broken off, leaving an actual height of $3\frac{1}{2}$ inches. At one point in the side an irregular triangular hole has been

purposely formed. Immediately below this is one attachment of a broken handle; as the rim shows no trace of the other attachment, the handle, if elsewhere joined to the vessel, must have been attached to the lost foot; this appears to be improbable, and we welcome the suggestion of Mr. J. Fulleylove, the artist, that the handle simply curved upwards to represent the tail of the swan whose head is seen on the opposite side. Here another break has been left in the wall of the vessel to admit of a group consisting of (1) the head and neck of a swan, with prominent bill and with bulging eyes, one of which has gone, showing that they were formed separately and fitted into small cavities; (2) two small rude bird figures, one on each side of the swan's head (the left being broken off), with shapeless body, but with eyes similar to those of the larger bird. In front of the swan is a flower-like cup with three petals on a curved stem, which springs from the edge between the concave and convex parts of the vessel. This vessel appears to have been made for ornamental purposes, as, owing to the orifices in the upper part, it could have held nothing except in the shallow lower part. There are no indications that it was designed for a lamp, or used as such.

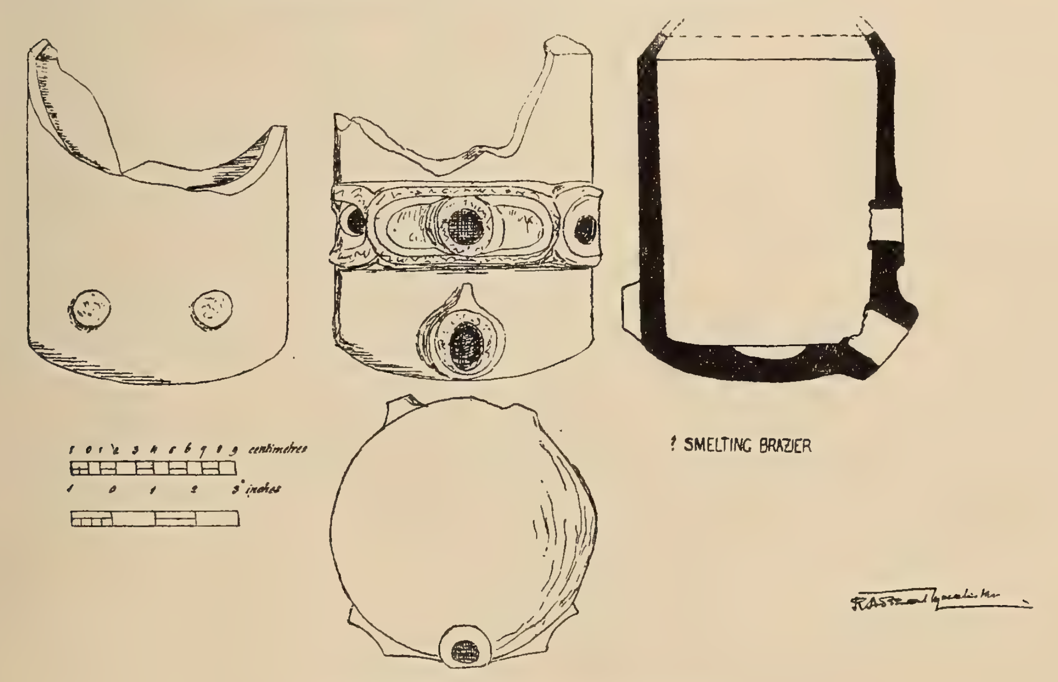
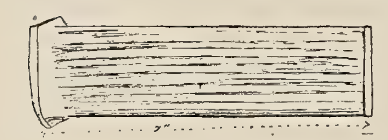


FIG. 38. SMELTING BRAZIER (?): TELL ZAKARÎYA.

Fig. 38 represents an object about 8 inches high, which appears to be a small smelting brazier, consisting of a cylindrical vessel, of red clay, with

rounded bottom. The top is broken off. The moulded band which runs one-third of the way round it is perforated with three holes, and there is an inclined opening near the bottom. The handle, which was near the bottom on the side opposite to the perforations, is broken off, leaving only the stump.

Pl. 48. *Types of handles and spouts.*—The forms of handles 1 to 7 are usually found on fragments of burnished bowls; No. 1 is a simple knob, against which the finger could be pressed; No. 3 is a solid projection like an hour-glass, to be held between finger and thumb; No. 2 has the same form, but is much elongated. No. 4 shows two hour-glass forms, resting vertically on a raised band; Nos. 5 to 7 are flat projections pierced with holes for suspension. Nos. 8 and 9 are waved bands; No. 10, a loop, not free, from the side of the vessel; No. 11, a loop, barely free from the vessel; No. 12 is a loop of triple form; No. 13 is twisted, with knob above; No. 14 is braided with three strands; No. 15 is a spoon-shaped object, that may or may not be a handle; No. 16 is a simple handle, with knob ornament; No. 17 is the top of a false-necked jar or pseud-amphora, of Mykenæan type, probably copied locally; a similar fragment was found in City II, Tell el-Ḥesy; several other fragments also were found at S. Nos. 19 and 20 are long spouts. Fig. 39 is a strainer spout which, from its length, 6½ inches, must have belonged to a huge jar or bowl, finely painted, as indicated by the minute portion still left at the point of attachment, where rings of grey and red paint may be observed; it is made of red ware, red faced and burnished; the top edges of the spout are painted in white and black lines.



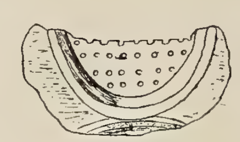


FIG. 39. STRAINER SPOUT.

The lamp of the period consists of a simple bowl, with plain rim, rounded bottom, and pinched spout (*see* No. 1, Pl. 66; also Fig. 174, M.M.C.). On Pl. 82 may be seen the manner in which these lamps are combined with bowls in pottery deposits.

F. J. B.

R. A. S. M.

CHAPTER IV.

POTTERY: JEWISH PERIOD (Pls. 49–57).

We have stated (p. 74, Chap. I) that by the term Jewish pottery we indicate those types in which Mykenæan and Phœnician influence is almost lost, and which came in with the later Jewish monarchy. Some of the older types indeed survive (to be noted in place), but in a degenerate form, and side by side with new styles. As a rule the pottery is coarse and ungraceful. The disappearance of the following features should be noticed: the peculiar coloured decoration, direct foreign imports and imitations, strainer spouts (with a few exceptions), the hour-glass handles and loop handles of Pl. 48. The most characteristic forms are the cooking pots (Pl. 54); lamps with thick stands (Nos. 4 and 5, Pl. 66); large jugs with broad necks (Nos. 3, 7, 8, and 22, Pl. 53); minute black juglets (Nos. 18–21, Pl. 53), and ribbed handles with Hebrew stamps (Pl. 56). With very few exceptions all the ware is wheel-turned. In the following description when the nature of the ware is not explicity stated, ordinary red clay (not very fine) may be understood.

Associated with the local ware of this period are two classes of Greek ware, doubtless imported. The earlier types date in Egypt from the seventh and sixth centuries B.C. They include amphoræ with massive loop handles, thick drab bowls with a smooth spherical interior and ribbed outside surface (T.H., Nos. 222–226, Pl. IX), and lamps with wide flat brim (No. 2, Pl. 66). Some lamps were found whole, but the amphoræ and bowls were always in fragments. The second class consists of the well-known glazed figured ware dating from 550 to 350 B.C. The patterns are usually red on black or black on red. Many fragments were found, usually in the higher levels of a Jewish stratum, but no whole specimens. This class very rarely

FIG. 40. FRAGMENT OF LEKYTHOS: TELL EṢ-ṢÂFI.

extends to Seleucidan times. The fragment of a lekythos (Fig. 40) was found in the rubbish heap at S. It shows a female figure outlined in gold and brown on a white ground. The dress is pink.

Pl. 49—Nos. 1, 3, 4, and 7 were found in a burnt layer at J, immediately above a flooring, together with the cooking pots (Nos. 1 and 5, Pl. 54), a cylindrical vessel of the type figured on Pl. 51, the small globular vase (No. 5, Pl. 53), and small black juglets like Nos. 18–21, Pl. 53; all these types are therefore strictly contemporaneous. The large jar (No. 1) differs from the early types (Nos. 1 and 2, Pl. 30) in having hardly any neck and a distinct edge on the shoulder, above the handle; No. 2 has a rounded base, in contrast with the early pointed bases; in both later types the handles are more rounded than in the earlier. Both these types are common, and the almost exact facsimile of jar No. 1 was found by Petrie at Tell Defenneh, in Egypt, as well as a jar bearing a close resemblance to No. 2 (*see* Tanis, Part II. "Nebesheh (Am) and Defenneh (Tahpanhes)," by W. F. Petrie, Pl. XXXIII, Nos. 4 and 3 respectively). Tell Defenneh, which guards the great Syrian highway, is the Tahpanhes of Scripture, and the Daphnai of Herodotus, where Psamtik I stationed a body of Greek troops about B.C. 664. Here Johanan took "all the remnant of Judah," including Jeremiah and the king's daughters (Jer. xliii, 5–7), after the murder of Gedaliah. A ruin, still known as *Kasr el-bint el-Jehudi*, or "Palace of the Jewish maiden," appears to commemorate this sojourn. The pottery, according to Petrie (*l.c.*, p. 64), shows pure Greek along with pure Egyptian styles, while some may be mixed. The two jars in question occur in a list of 61 vessels, which he says "may be fairly attributed to native (Egyptian) potters," on the ground of their agreement with forms in other Egyptian sites. As indicated by the phraseology, this statement does not seem to be made with great positiveness, and we may regard it as an open question whether these two types were introduced into Palestine from Egypt, or *vice versâ*. If the latter view be correct, it is quite conceivable that the remains at Tell Defenneh may still preserve some pottery made or imported by the Jewish exiles. Petrie points out (p. 49) that in view of the unsettled state of Judæa, Egypt in general, and Tahpanhes in particular, had probably been the refuge of Jews for twenty years previous to the murder of Gedaliah. No. 6, Pl. 49 (with its counterparts, No. 4, Pl. 50, and No. 6, Pl. 52), bears a remarkable resemblance to No. 44, Pl. XXXV, of Petrie's "Defenneh," classed by him with Greek pottery. No. 3 is a large jar with three handles springing

from the rim; in the place of the fourth handle is a cup connected with the body of the jar by a small drain hole; it has a ring base; incised lines occur within the neck. Nos. 4 and 9 are ordinary jugs with one handle; No. 9 may be Seleucidan; No. 5 is a plain globular vessel with long neck and no handles, burnished in vertical lines. No. 7 (*see* No. 9, Pl. 21) suggests in shape the earlier painted vessel (No. 1, Pl. 43), but has a broader neck; it has a red face, burnished with vertical lines, and is encircled with a few red and white rings; two other specimens were found of similar shape. No. 8 (drab ware) is a "pilgrim bottle," with very thick sides, and in general rude; compare with painted specimen (No. 4, Pl. 52). No. 10 has no handles and a short neck, and is burnished in horizontal lines. No. 11 is rudely burnished on a red wash; an almost identical shape, burnished on the clay without wash, was found at Tell Sandaḥannah (*see* p. 125). No. 12 comes from J, and resembles the early form of jug No. 5, Pl. 30, though very little late pre-Israelite ware was found at this site.

Pl. 50. The long vase No. 1 is rudely pattern-burnished on plain red ware. No. 2 suggests the earlier type, No. 4, Pl. 30. No. 3 is of the same type as No. 5, Pl. 53. No. 4 (drab ware, *see* No. 6, Pl. 21) is of the same type as No. 6, Pl. 49, and No. 6, Pl. 52. Nos. 5–7 are ordinary jugs with one handle. No. 8 has moulded neck and is pattern-burnished. No. 9 falls under the pilgrim-bottle type, of which other examples are No. 8, Pl. 49 and No. 4, Pl. 52; it is coarsely made, with very thick sides; drab ware. The miniature vessel, No. 11, suggests Nos. 16 and 17, Pl. 53. The pointed juglet, No. 12, is remarkable for its small size. No. 13 is a rattle, closed at top, and containing a pellet of some sort. The straight sides of No. 14 suggest the larger vessels on Pl. 51.

On *Pl.* 51 we have three specimens of large cylindrical jars with almost straight sides and with no handles. From a study of numerous fragments, we gather that the type was developed in earlier times, but the only whole forms discovered belong to the Jewish period. They are made of dark red clay, wheel turned, No. 2 having ribs inside. No. 1 (*see* No. 11, Pl. 21) has rounded base and plain rim projecting over the mouth; No. 2 has rim curving outward slightly and concave disc base; in No. 3 the rim expands both outward and inward, and the base is pointed.

Pl. 52. All the specimens here shown are from Z. Nos. 1 and 2 were found at the dividing line between the pre-Israelite and Jewish periods, and

show characteristics of both. The hollow trumpet-foot was developed early, but survived into Jewish times, as seen in No. 1, Pl. 53; also painted decoration is characteristic of the earlier period, and is seldom found on Jewish ware; on the other hand, the generally clumsy shape suggests the later period. The decoration is dark Indian red on a drab ground. No. 3 belongs to the series of large-necked jars, Nos. 3, 7, 8, etc., Pl. 53. No. 4 is a pilgrim bottle of drab ware, with rudely executed pattern in red. No. 5 is a nondescript vessel with very thick sides and moulded rim. No. 6 is similar to No. 6, Pl. 49.

Pl. 53. The type represented by No. 1 belongs to late pre-Israelite times; this specimen was found in fragments, but as these occurred all together near the top of a Jewish stratum, it must belong to the later period. It is a cup on a hollow trumpet-foot (*see* No. 17, Pl. 45, for earlier example). The ungraceful shape of the jug, No. 2, is typically Jewish. Nos. 3 (*see* No. 3, Pl. 21), 7, 8, 11, 13, and 22 are of one characteristic type, jugs with one handle, very large necks, and wide mouth; the base is rounded as in 3, 11, 13, and 22, flat as in 8, or ring-form as in 7; usually of red ware. No. 4 is in general similar to No. 2, but is rudely burnished in horizontal lines. Of the globular vessel with low flanched neck and without handle, No. 5 (*see* No. 10, Pl. 21), two other specimens were found. No. 6 shows a rude strainer-spout, developed from the earlier more graceful type; the jar has no handle. On 9 the handles are large in proportion to size of vessel. No. 10 belongs to the series of juglets originating in pre-Israelite times, but extending into the earlier part of the present period (*see* Pl. 32); this specimen is not burnished, and its base is pierced with holes to form a strainer. No. 12 (drab ware) properly belongs to the Seleucidan group (Nos. 18 to 20, Pl. 60); it was classed with Jewish pottery at Z, before we had distinguished the styles from those of the later period, and by mistake has got on to this plate. No. 14 is similar to Nos. 2 and 4 above. No. 15 suggests an earlier influence (*cf.* with No. 1, Pl. 43, *see* also remarks on No. 7, Pl. 49). it is of black paste, covered with a red-brown wash, burnished in close lines. Nos. 16 and 17 are rude minute vessels with no handle. Nos. 18 to 21 (No. 20, *see* No. 1, Pl. 21) are characteristic little jugs of black paste, often rudely burnished. No. 18 (*see* No. 2, Pl. 21) may be wheel-turned, but the rest are hand-made; an exaggerated type of handle appears on No. 21; the general type survived to Seleucidan times.

Pl. 54. *Cooking Pots.*—This type has a long range extending beyond

this period into Seleucidan times, where specimens (in fragments) were common with all the types figured on plates 58–64. They are made of red clay, wheel-turned, but the outside surface usually has a purplish tinge owing to smoke. They are characterized by globular body, rounded bottom, short neck, and two handles springing from the rim, usually moulded. (For types 1 and 3, *see* Nos. 13 and 5, Pl. 21.) The later specimens are finely ribbed (Nos. 4 and 6 to 8). On Nos. 1 and 5 may be observed a common feature, namely incised lines, about level with the handle; sometimes this is found on the rim instead of a moulding. They appear to be developed from an earlier type (Nos. 1–4, Pl. 33), but are more globular, and have narrower mouths; No. 3 more nearly resembles the earlier type.

Fig. 41 shows a pierced circular disc, probably a spindle-whorl,

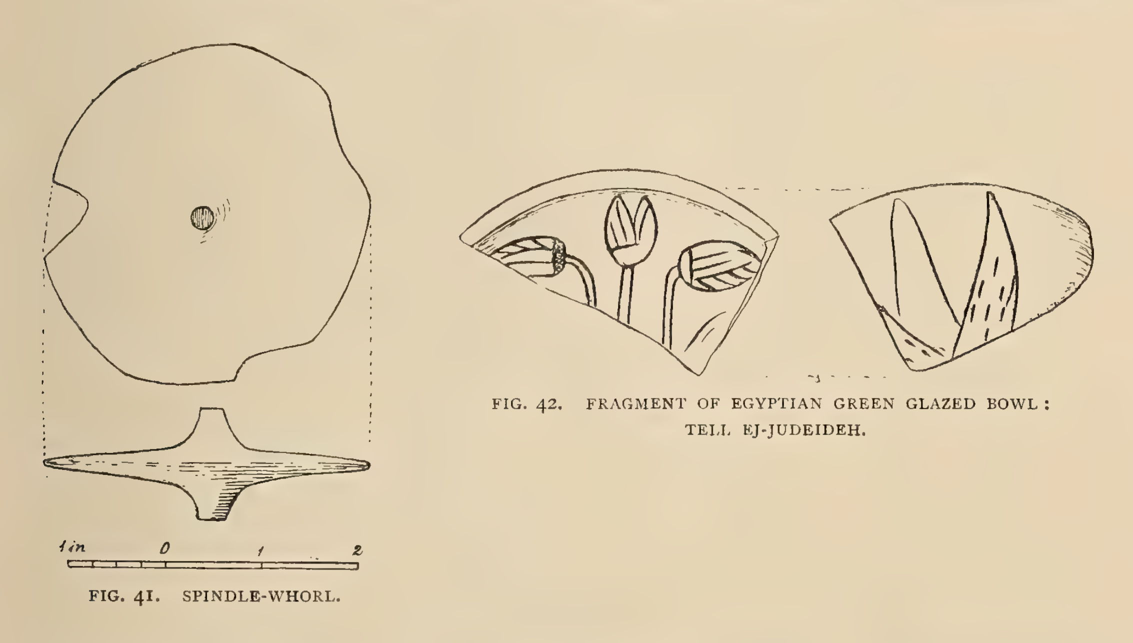


FIG. 41. SPINDLE-WHORL.

FIG. 42. FRAGMENT OF EGYPTIAN GREEN GLAZED BOWL: TELL EJ-JUDEIDEH.

about 4 inches in diameter, found at Tell ej-Judeideh. The fragment of green glazed saucer, probably Egyptian (Fig. 42), with lotos painted in brown, is also from J.

Pl. 55 shows the pattern-burnished bowls of the period. This style of burnishing, which was developed in the early pre-Israelite period (*see* p. 81), continued through the next two periods, but appears to have gone out before Seleucidan times. Only one vessel (No. 13, Pl. 58) with this surface was found in the Greek town at Tell Sandaḥannah, and this may have survived from an earlier period, indicated by a lower stratum. In

Nos. 1–3 the burnishing is on a red wash; in 4–6 on the plain surface of the clay. Nos. 1 and 2 show the thickening of the rim inside, a survival from very early times. Nos. 3 and 5 are burnished in plain lines, No. 3 inside only, and No. 5 both inside and outside. The upper part of No. 3 (*see* No. 4, Pl. 21) is moulded. Nos. 2 and 6 are burnished inside, having a spiral at the base. No. 1 has a more elaborate pattern, the nature of which, however, cannot be deduced from the small fragment preserved. In Nos. 1 and 2 the pattern is burnt black on a red ground. No. 4 is of fine yellow clay, slightly burnished, with incised lines near the top. In no case is the polish high, but in the case of No. 2 the slight gloss of the black pattern is noticeable in contrast to the dull surface of the parts untouched by the tool. Fragments of large Jewish bowls with moulded rims and four handles were found, but no whole specimens. The characteristic lamps of the period (Nos. 4 and 5, Pl. 66) are of the open type, and show a shallow bowl on a very thick stand.

On *Pl.* 56 are drawn specimens of the marks found on jar handles, including *royal stamps*, *potters' stamps with names*, *potters' stamps with devices*, and *nail marks*.

1. Royal Stamps.—These fall under two classes, one class showing a symbol with two wings, the other a symbol with four wings. In each class we find above the symbol the Hebrew letters למלך (to the king), and below the symbol the name of a town. Four town names have been recovered: Hebron, Ziph, Socoh and an unknown name, the consonants of which are M M S T. Seventy-seven royal stamps were found at the four sites excavated, and three specimens were picked up from the surface of Tell Duweir, near the village of Kubeibeh, south of Beit Jibrîn. Six jar-handles with royal stamps, containing the two-winged symbol, were found by Sir Charles Warren at a depth of 79 feet, at the south-east angle of the Haram enclosure at Jerusalem. On these stamps may be traced the names of Ziph, Socoh, and M M S T. On twenty-seven out of the eighty specimens found by us, the town name is entirely wanting owing to fracture, disintegration, or imperfect stamping. In some of these the upper line is also gone, nothing remaining but the symbol, more or less distinct. Each of the other fifty-three specimens shows traces of one of the four town names mentioned above. In most cases a given name may be made out clearly, in others the position of one or more letters suggests the identification with one of the four town names. The following tables show the number of handles

found at each site, the distribution of the place-names among the various sites, the ratio between the two-winged and four-winged types, etc.

	Z.	S.	J.	Sn.	D.*	Total.
Two-winged type ; place-name illegible ...	2	0	10	2	0	14
,, ,, ; ,, ,, Ziph	1	0	2	2	1	6
,, ,, ; ,, ,, Hebron ...	1	0	3	0	0	4
,, ,, ; ,, ,, Socoh ...	0	0	5	4	0	9
,, ,, ; ,, ,, M M S T. ...	0	0	6	3	0	9
						—42
Four-winged type ; ,, ,, illegible ...	2	4	5	1	1	13
,, ,, ; ,, ,, Ziph	2	0	2	0	0	4
,, ,, ; ,, ,, Hebron ...	3	0	2	3	1	9
,, ,, ; ,, ,, Socoh ...	5	2	2	2	0	11
,, ,, ; ,, ,, M M S T. ...	1	0	0	0	0	1
						—38
						Total 80

Total place-name illegible	27
,, ,, ,, Ziph	10
,, ,, ,, Hebron	13
,, ,, ,, Socoh	20
,, ,, ,, M M S T....	10
	80

The relatively large number of Royal stamps at Tell ej-Judeideh is noticeable. This may be accounted for partly by the fact that at this site we collected hundreds of handles strewn over the surface, the examination of which resulted in the discovery of several stamps, and partly by the fact that we added to our usual dry-polishing of all handles excavated, the process of washing and scrubbing those more thickly covered with dirt, while the incrustation on others was removed by acid. But these facts are not sufficient to account entirely for the disproportion. It is curious that, while the types of pottery with which these handles are associated at J were found in great quantities at Tell el-Ḥesy, no Royal stamps were seen at the latter place.

We may consider the discussion of the jars with Royal stamps under four heads :—The handles ; the symbols ; the inscriptions ; and the date.†

* Tell Duweir.

† This discussion has been prepared by Mr. Bliss. For Mr. Macalister's view regarding the interpretation of the inscriptions, *see* p. 114.

(1) *The Handles.*—All the specimens from J are made of rather coarse black clay, usually containing minute particles of quartz, etc., the surface, being black, brown, yellow, light red, or dark red, according to the intensity of firing. Several specimens from other sites show a red colour all through the section of fracture, but the clay appears to be the same as in the other handles, and the red colour inside probably means that these two specimens had been subjected to the severest firing. In examining a heap of sherds thrown out from a modern pottery at Beirût, where the potter was using a uniform black clay for all his vessels, Mr. Bliss observed that the surfaces of the sherds showed almost every variety of colour. Fig. 43 is reproduced



[From a Photo.

FIG. 43. JAR HANDLES WITH "ROYAL STAMPS."

from a photograph of three typical handles. All the handles from the four sites have a rib, more or less pronounced, and in most cases double. In shape the handles show two varieties: thin handles with slight curvature in breadth (giving an almost flattened top), and thick handles, with a more pronounced curvature in breadth. The four-winged symbols are confined to the thick type, while of the two-winged symbols found at J about two-thirds are stamped on the thin handles, and one-third on the thick. No jar has been found complete, but that the vessels to which these handles belong must have been very large, is suggested by the extremely slight

curvature of the portions attached to the handles.* The jars were wheel-turned.

(2) *The Symbols.*—The stamps consist of an oval containing a symbol with two lines of writing, one below and the other above, all in relief. The symbols are of two kinds: one has two wings, the other four. In all cases but one, the axis of the body of the two-winged figure is at right angles to the axis of the handle, while that of the four-winged figure is parallel to it. Of the eighty specimens found, forty-two are of the two-winged type and thirty-eight of the four-winged type. The clay is the same, and the four place-names have been found in connexion with both types. In general the two types have been found in the same archæological stratum. In one case at Z three specimens of the two-winged type were found in a few inches of débris upon a flooring, and above this occurred another flooring, upon which were three specimens of the four-winged type. This proves no more than that the three latter individual handles were used later than the former (*see* p. 22).

The four-winged figure is treated in some cases naturally, and in others conventionally. The natural treatment can best be seen in Nos. 10 and 12, Pl. 56, where we have a four-winged beetle, with well-articulated body and well-shaped head. In the conventionalized type the head is wedge-shaped, and the body terminates in a zigzag. In both treatments the upper wings curve upwards and the lower wings downwards. The naturalistic treatment shows that this type represents the ordinary Egyptian scarabæus with out-stretched wings. The attempt of Mr. Offord (*see* p. 111) to identify the symbol with the figure of a god would thus appear to be superfluous. That the scarab form was common in Palestine has been amply illustrated by our discovery of scarabs in paste, bone, etc., though the fact has long been established. The representation of this symbol with four outstretched wings (all curving upwards) may be seen in the Amathus patera in the New York Museum (P. and C., "Phœnicia," Fig. 271, Vol. II), in the Phœnician platter (*ib.*, Fig. 36, Vol. I), and on the Phœnician scarabæoid (*ib.*, Fig. 75, Vol. I); in the two last cases the beetle has been elaborated by the addition of a human head, uplifted arms, etc.

Attempts to identify the two-winged symbol are complicated by the fact that it is always treated roughly and conventionally; specimens with naturalistic treatment, as seen in certain examples of the four-winged type,

* The jars to which these handles were attached were probably similar to Nos. 1 and 2, Pl. 49.

being absent. The essential elements are a small body, two upward curving wings, wedge-shaped head, and wedge-shaped tail with feathers sometimes indicated. Pending the discovery of more carefully executed examples, four theories may be advanced with regard to the origin of the symbol. Of these the first appears to be the most plausible.

(*a*) *A simple winged solar disc.*—The winged solar disc, originating in Egypt, was widely copied in the symbolism of the Assyrians, Hittites, Phœnicians, and Persians. Numerous examples may be seen figured in the histories of the art of these peoples by Perrot and Chipiez. In Egypt this symbol is commonly found on the lintels of doorways. The ordinary representation consists of a globe flanked by *uræi*, and having two large outstretched wings (P. and C., "Egypt," Fig. 134, Vol. II). On the ornamentation of the great temple of Ipsambûl (*ib.*, Fig. 247, Vol. I) the globe may be seen to terminate in a bird's tail. This tail is more fully developed in Assyrian and Persian representations, such as occur on the obelisk of Shalmaneser II. (P. and C., "Assyria," Fig. 49, Vol. II; *see* also Fig. 18, Vol. I), and on an example at Persepolis (P. and C., "Persia," Fig. 156). A similar form also appears on Hittite monuments (P. and C., "Judea," Figs. 278, 279, Vol. II). In Phœnician examples the ordinary Egyptian form, without tail, may be seen on the entablature from Byblos (P. and C., "Phœnicia," Fig. 48, Vol. I), and on the architrave of the doorway at Umm el-ʿAwâmid (*ib.*, Fig. 68); but the tail occurs in the example on a marble column from Tyre, in the Louvre (*ib.*, Fig. 72). A careful examination of this last example leads us to ask whether we have not here the actual duplicate, though rendered artistically rather than roughly, of the two-winged symbol on the jar handles. The example from Tyre shows the same upward curve of the wings, the wedge-shaped tail with feathers, and a wedge-shaped projection above the globe (divided into feathers), corresponding with the wedge-shaped head of the symbol on the jar handles. The only noticeable difference is that on the latter the curvature of the globe is not clearly indicated, but this may be due to the roughness of the execution. Another example of the same type occurs in a scarab from Sardinia (P. and C., "Phœnicia," Fig. 20, Vol. II), but in this case the wings curve downwards; projections occur, however, both above and below the disc.* Turning to Judea, we find on the reverse of the seal of

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* Compare also with "Persia," Fig. 226; "Assyria," Fig. 140, Vol. II; "Phœnicia," p. 141, Vol. I, tail piece, etc. Notice in this connexion the seal, Fig. 2, *Q.S.*, 1900, p. 380.

Shebaniah (P. and C., "Judea," Fig. 228, Vol. I) two-winged discs with tail clearly indicated, but with no projection above. This identification of the two-winged symbol on the jar handles with the simple winged disc is supported by M. Clermont-Ganneau (*Q.S.*, 1899, pp. 205, 355).

(*b*) *Figure of a god developed from the winged disc.*—The theory advanced above identifies the symbol with the simple winged disc, but the rudeness of the execution suggests the question whether it may not be intended to represent the elaboration of the symbol by the Assyrians who introduced the figure of a man or god with the disc, treated as a ring (P. and C., "Assyria," Fig. 19, Vol. I). In Persian times this symbol occurs in the centre of the crowning of the façades of buildings, and in the upper part of the bas-reliefs (P. and C., "Persia," Figs. 112, 190; *cf.* Fig. 200). The head and body of the figure project above the wings, thus corresponding to the projection above the symbol in the jar handles, and the figure is clothed in a feathered petticoat, identical in shape with the tail of the simple disc. The figure is held to represent the god Ahurâ-Mazda (*ib.*, p. 416). The suggestion has already been made by Mr. Offord (*Q.S.*, 1900, p. 379) that the four-winged symbol really represents a god, probably Baal. This idea he bases on a comparison with the seal of Baalnathan (P. and C., "Judea," Fig. 231, Vol. I), which shows the figure of a god with head, arms, legs, and four out-stretched wings. This identification appears to be ruled out by the exact correspondence of the four-winged symbol with a scarabæus.

(*c*) *A two-winged scarabæus.*—This identification is made by Professor Sayce (*Q.S.*, 1900, p. 170), who notes the appearance of a two-winged beetle on a scarab of Antef IV of the XIth Dynasty (Petrie, "Historical Scarabs," 159). Two-winged beetles may also be seen in P. and C., "Egypt," Fig. 287, Vol. II, and "Assyria," Fig. 224, Vol. II. In favour of this identification would be the assumption that the symbols, accompanied as they are by the same dedications, are identical in both types, the four-winged type unmistakably representing a beetle. It should be noted, however, that while the heads of the two types are identical, the two-winged type terminates in a wedge-shaped tail, and the four-winged in a slight zigzag.

(*d*) *A bird.*—In the "Recovery of Jerusalem" (p. 473), while the identification with the winged disc is preferred, the resemblance, in some degree, of the two-winged symbol to a bird is admitted. The bird with wedge-shaped tail in P. and C., "Assyria," Fig. 95, Vol. II, is not unlike the symbol under consideration. Noting the difference between the two symbols

(*Q.S.*, 1899, p. 355), M. Clermont-Ganneau suggests that they may be "marks peculiar to different kings, or, rather, factory marks distinguishing the different royal pottery manufactories where the jars were made." It appears to Mr. Bliss that the former suggestion is the more feasible, as the latter would involve, according to his theory of the meaning of the inscription, two different Royal potteries, at Hebron, Socoh, Ziph, and MMST respectively.

(3) *The Inscriptions.*—On every well-preserved handle are two lines of writing separated by the symbol, the upper line having the letters למלך, and the lower the name of a town. The reading depends upon whether למלך is to be taken relatively as לְמֶלֶךְ, "to the King of ——," or absolutely as לַמֶּלֶךְ, "to the King." In the first case we must read: "To the King of Hebron, Socoh, or Ziph," as the case may be. This was our reading on the discovery of the first specimen with the name Hebron (*Q.S.*, 1899, p. 104), but the finding of numerous other stamps, always in connection with late Jewish pottery, shows that these inscriptions must post-date the time when the country was divided up into petty monarchies. We now prefer the suggestion of M. Daveluy (adopted by M. Clermont-Ganneau, *Q.S.*, 1899, p. 206), that the words should be isolated with no grammatical relation between them, giving the reading, "To the King —— Hebron," etc. In this case the word "king" would represent the sovereign of the country.

Light has been thrown on the interpretation of the inscription by the wide geographical distribution of the four place-names Hebron, Socoh, Ziph, and MMST, as well as by the absence of all other town names. This, is, perhaps, best explained by taking the names to indicate the sites of four potteries, connected in some peculiar way with the king. This is the view of Prof. Sayce, who refers to 1 Chron. iv, 22, 23, as evidence of the existence of royal potteries (*Q.S.*, 1899, p. 210). He regards these potteries as royal monopolies, but it will be shown later that during this period private persons probably manufactured pottery. It would appear that the four potteries in question existed under special royal patronage or sanction, differentiating them from others. This theory would account for the presence at Jerusalem of handles bearing the names Socoh, Ziph, and MMST, on the simple ground that pottery made at these places was sold at the capital. The finding at Tell Zakarîya of ware from these four ancient potteries is paralleled to-day in the village of Zakarîya, where

the natives get their jars from itinerant hawkers, one day purchasing Hebron ware, another day Ramleh ware, and still another day Gaza ware.

M. Clermont-Ganneau advances the theory (*Q.S.*, 1899, p. 206) that the jars to which these handles belonged may have been intended to contain products of oil, wine, or grain, representing tributes furnished to the royal storehouses by the chief cities of the kingdom. The first part of the inscription, "To the King," would be equivalent to the modern formula, "His Majesty's Service," and the second part would indicate respectively the name of the city furnishing the dues. To prevent all fraud in regard to the amounts to be delivered, the most practical method would naturally be to have the receptacles made according to the proper gauge at the royal manufactories, and officially stamped with the royal seal. This would adequately explain the presence of such vessels at Jerusalem, where the dues were to be delivered. At the time M. Ganneau's theory was advanced, besides the royal stamps found at Jerusalem, the only specimen available for study was the first found at Tell Zakarîya, containing the place-name Hebron. He shows that the presence at that tell of the latter specimen may be explained in various ways:—"For instance, jars from Hebron destined for the capital (or *vice versâ*) might have been temporarily transported to the city represented by Tell Zakarîya to be sent on to Jerusalem, together with other jars coming from different towns in the district, and deposited here as a central point. Or again, an order might have been given to Hebron to deliver at the neighbouring city a certain portion of the dues in kind, at a time when the towns of the district were being put on a war footing." (*Q.S.*, 1899, p. 207.)

The subsequent discovery of numerous stamps appears to invalidate M. Ganneau's interesting theory, which assumes that all the chief cities of the kingdom had jars officially stamped with their respective names; and, second, that the natural destination of all such jars was Jerusalem. In regard to the first assumption, we notice that each of the fifty-two other legible jar-handles found by us is stamped with the name Hebron, Ziph, Socoh, or MMST. No other names were found. It is almost inconceivable that chance should have preserved at five different sites stamps bearing these names, and that the names of other cities should have disappeared; or that in our random clearances at a given site we should have always happened upon these four names, while the names of other towns remained buried in the unexcavated portions of the tell. Disregard-

ing more distant towns, why should we not find the name Azekah, Beth-Shemesh, or Gath? The natural inference is that the constant repetition of the four names was due to some peculiar feature which did not distinguish the other towns of the district. In regard to the second assumption, namely, that the natural destination of these jars was Jerusalem, we note that while the finding of a single jar or group of jars out of their proper place may be explained as an accident or exception in one of the ways suggested by M. Ganneau, such explanations lose their force when we are compelled to apply them to a large number of cases. The existence of jars from Ziph and Hebron at J, Z, Sn, and D; from MMST at J, Z, and Sn; and from Socoh at J, Z, S, and Sn must be due to some cause working normally. The above difficulties disappear when we assume that in Jewish times the district embracing the sites excavated by us was supplied with ware from the royal potteries of Hebron, Ziph, Socoh, and MMST.

Mr. Macalister, who objects to the "Royal Pottery" theory on the ground that the stamps are never found except on handles of one definite size and shape, holds the view that these four towns were the centre of districts in which were collected the dues in kind of the surrounding villages. The geographical distribution of the jars he would account for on the theory that, after the produce was delivered at Jerusalem, the jars became the perquisites of the tax-gatherers, who sold them to whoever would buy. The occurrence of these four names only he would explain on the ground that the purchasers from the towns represented by the sites excavated, would naturally deal exclusively with the tax-gatherers of their own, or immediately neighbouring districts, Hebron, Socoh, and Ziph being within easy access of Z, S, J, Sn, and D.

The theory of our foreman Yusif may be added, as it is well to note the ideas of a native who argues from the conditions obtaining to-day in a land which has preserved so many ancient customs. He regards these jars as simply officially stamped measures of capacity, which varied locally at the towns Hebron, Ziph, etc. He notes that the measure of wheat varies to-day at Tell eṣ-Ṣâfi, Zakarîya, and Beit Nettîf, villages within a radius of three miles, which have inter-communication of trade, and must use each other's standards. He points out that in buying a *rotl* of *samn* (native butter) in this district, you are asked whether you mean a "Hebron *rotl*" or a "country *rotl*"; that in Jerusalem, notwithstanding the official

standards, you may, in the same shop, buy cloth according to three or four-yard measures; and that in his native village, in the Lebanon, the shops are subject to official visitation, the object of which is to see what standards of weight, capacity, etc., are used (as, for example, the local or Constantinople weights) and whether these standards are correct. According to him the למלך represents the royal recognition of a local standard, and the place-name indicates what that standard was. This theory cannot be tested until the discovery of whole jars admits of the comparison of the relative capacity of jars with the different stamps.

(4) *The Date.*—Owing to the exceedingly small number of known Hebrew inscriptions, it is unsafe to attempt to date these stamps on palæographic grounds.* Hence we must search for other suggestions. Of the thirty-seven examples discovered at Tell ej-Judeideh a few were found scattered over the surface, while the rest occurred in the stratum of débris, characterized mainly by Jewish pottery, which extended from the surface to a depth ranging from 7 feet to 9 feet. In places the upper 4 or 5 feet of soil were disturbed by the sinking of foundations for later buildings, and contained a mixture of Greek, Roman, and Jewish types. This disturbance accounts for the finding of Jewish ware on the surface. That the jar-handles are to be associated with the Jewish rather than with the later forms is proved (apart from the Hebrew lettering) by the fact that exactly the same types of double-ribbed handles (though unstamped) occur in the undisturbed portion of the stratum. The Jewish ware shows a great many types, which are also associated at Tell el-Ḥesy, and there dated from about 800 to 500 B.C. In connexion with these forms are early Greek types found to have the same range of date in Egypt. The occurrence of the ribbed handles with stamps

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* For convenience in study, the letters found on these stamps, together with the Hebrew letters occurring on other potters' seals and weights found by us, are arranged alphabetically on Pl. 57. Comparison may be made with the corresponding letters found on the three principal Hebrew and Phœnician monuments of the country—the Moabite stone of Dîbân, the Siloam inscription, and the Eshmunazar inscription of Sidon. The reference letters denote the type of handle on which the letter was found. H, S, Z, M, stand for Hebron, Socoh, Ziph, and ממשת respectively; H^2 and H^4 denote "two-winged type" and "four-winged type" of "Hebron" seal: and so for the rest. The letters Wt. stand for "weight," indicating that the character appeared on one of the small dome-shaped stone weights found at Zakarîya and elsewhere. When no indication of source is given, the stamp is one of those bearing the names of private potters.

in the upper in contrast to the lower part of the stratum, suggests that the inscriptions date from the later part of this period—say 650 to 500 B.C. At Tell eṣ-Ṣâfi, Tell Zakarîya, and Tell Sandaḥannah the royal stamps were found in strata having the same range of date as the Tell ej-Judeideh stratum. A slight objection to assigning a pre-Exilic date to these stamps lies in the representation of living creatures. The force of this objection is weakened, however, when we consider the tendency towards idolatry evinced by the later Jewish kings. On the other hand, it is quite conceivable that under the Persian dominion such symbols (*see* p. 111) might be found in connexion with inscriptions in the language of the conquered race.

We may now turn to the eighteen royal stamps figured on Pl. 56. Examples are given of the four place-names in connexion with the four-winged symbol and two-winged symbol respectively. Nos. 1, 2, 4, 5, 6, 7, 11, 12, 14, and 15 are from Z. The rest are from J.

Nos. 1 and 2.—Four-winged type. Place name חברן (Hebron). In the Old Testament the name is always written fully חברון. No. 1 was the first royal stamp found by us, and is the best preserved of all the Hebron stamps. In No. 2 the initial letter has been obliterated. No. 3. Two-winged type. Place-name חברן (Hebron). Contrary to the usual method in placing the two-winged stamp, in the present case it was placed parallel to the rim of the jar.

Nos. 4–7. Four-winged type. Place name שוכה (Socoh), *see* p. 62. In the Old Testament the forms שכה and שוכו also occur. Note the ligature between the first two letters, and the four side strokes of the *he* instead of the more common three strokes. Nos. 8 and 9. Two-winged type. Place name שוכה (Socoh). Note the dots terminating the top of each line of writing; also the indications of feathers in the tail of the symbol in No. 9, the elaborate nature of the *waw*, and the ligature between the two final letters of the place-name.

Nos. 10 and 12. Four-winged type. Place name זיף (Ziph).* It would appear from the figure in the "Recovery of Jerusalem," p. 474, and the accompanying description, that on the specimen found at Jerusalem the shortened form of the name זף occurs. But there is room for the missing *yod*, which may have been worn off. Nos. 10 and 12 are excellent

* *See* Josh. xv, 55. Now *Tell Ziph*, south of Hebron.

examples of the natural treatment of the symbol, which is plainly nothing else than a beetle with four wings expanded. The drawing No. 10 is a combination of two unequally stamped specimens, proved to be identical by minute measurements between corresponding points; the upper line being taken from one, the lower line from the other. The engraver has made a curious mistake in the word זיף. In the process of reversing the letters on the stamp, he became confused in treating the letter *yod*, which he placed upside down instead of backward. The prolongation of the *lamed* in the word למלך is probably due to a slip of the engraver's tool. On No. 11 the marks in the line for the place-name are exceedingly faint, and probably confused with accidental scratches. Though by analogy the name is probably *Ziph*, it is not included in the preceding list of handles from that place (all of which show at least one clear letter in its right position), but falls under the class of illegible handles. Its inclusion in this sheet is due to an oversight. In No. 12 the middle letter of the place name is partly obliterated. Nos. 13, 14. *Two-winged type.*—Place-name זיף (Ziph). On No. 13 this name is very clear. The initial *zayin* and the tops of two other letters relegate No. 14 to the same class. The vertical stroke after the *mem* in the upper line occurs in another stamp in a corresponding position, and hence is probably not accidental; it may serve the purpose of a hyphen between the two parts of the word separated by the head of the symbol. A similar vertical dash occurs under the *lamed* of possession in the upper line. As it is cut quite as clearly as the rest of the inscription, it would appear to serve some purpose, though what its significance may be is not clear.

No. 15. *Four-winged* type.—Place-name ממשת (Memshath ?). Nos. 16, 17. *Two-winged* type. Place-name the same. As the place-name of No. 15 was not recognized till it was compared with the examples Nos. 16 and 17, found later, these may be discussed first. On No. 16 the name is unmistakably ממשת. On a second (undrawn) example this was equally clear. No. 17 is an impression of the same stamp as No. 16, used in this case twice, as proved by the blurred symbol, the repetition of the lower end of the *caph* in the upper line and of the *shîn* in the lower line. On an imperfect stamp found in Jerusalem the place-name terminates in שת. Before our discovery of handles terminating in the same way, Professor Clermont-Ganneau pointed out (*Q.S.*, 1899, p. 205) that before these two letters in the Jerusalem stamp there was sufficient space for two other letters, and accordingly he proposed the reading מרשת, a name found in the

fuller form מורשת־גת (Moresheth-gath) in Micah i, 14. On the other hand, ממשת does not occur in the Bible, nor do its radicals correspond to any known Hebrew root. As the names Hebron and Ziph occur both on the Jerusalem handles, and on those found by us, it is probable that the name terminating in שת is the same in both groups. When the six examples with this termination were found at J,* we made an examination of them, to determine whether the reading ממשת (absolutely clear in certain cases) could be due to the blunder of an engraver, who meant to cut מרשת. Minute measurements taken between corresponding letters proved that at least three different stamps were used. On two of these the second מ (the letter in question) is perfectly clear, while on the third, the letter occupying this space, though blurred at the top, shows the curved tail of a מ and not the straight tail of a ר. It is hardly conceivable that an engraver should have made the same mistake twice, or that three different engravers should have produced the same blunder. Accordingly we assumed that the Jerusalem stamp is ממשת as well. This assumption has been confirmed by the discovery of two-winged stamps at Sn, bearing the same name. Light has also been thrown on the much disintegrated stamp No. 15 (four-winged type) found at Z earlier in the campaign. Only two letters of the place-name remain, מ and ש, but these are so disposed as to leave space for a letter on either side — מש —. Before the מ may be traced a mark which could easily be the tail of an initial מ . The town Memshath (to vocalize it provisionally) could not have been of great importance in early times, as it is not found in the name-lists in the book of Joshua. We may assume either that it came under the head of unenumerated villages in such a phrase as "eleven cities (which are named) with their villages" (Joshua xv, 51), or that it was not built till Jewish times. It may have had no distinction, beyond being the site of a Royal pottery.

No. 18. *Two-winged type.*—Place-name wanting. This specimen is drawn to show the type of ornament, consisting of concentric circles at the side of the symbol. This example was unique among our discoveries, but a similar ornament occurs in connexion with the royal stamps found at Jerusalem. No. 19. This combination of nailmarks has been added to the royal stamps, being apparently a rude imitation of the four-winged symbol.

II. *Potters' Stamps with Names.*—It is an open question whether the

* Casts of these six specimens are at the Office of the Fund.

names found on these handles are those of the owner or of the potter. At first we held the former view, which is supported by a modern custom in Asia Minor. A man chooses his pots at the manufactory, and has his seal affixed before they are baked. The finding of identical stamps (No. 27) at Tell eṣ-Ṣâfi and Tell Sandaḥannah* is an argument for the other theory. The simplest explanation is that the same potter sold his ware at both sites. However, it is conceivable that an inhabitant of one town may have sent a present of wine in his own jar to a friend in another town. These stamps are impressed on ribbed jar handles, identical in character with those on which the royal stamps are found, and occurring in the same archæological stratum with them. The type of seals used is well known. They usually consist of two names enclosed within a circle or ellipse and separated by one or two horizontal bars. The first is the name of the owner or potter, and is sometimes preceded by the *lamed* of possession; the second is probably the father's name. No. 22 is the only example we found of a rectangular stamp. No. 21 is an example of beautifully fine engraving. Twenty-five specimens were found in all, distributed among the four sites as follows: Z, 2; S, 2; J, 16; Sn. 5. Of these eleven are drawn, five are duplicates, seven are either so badly stamped, or so much weathered, as to be absolutely illegible, and one (with its duplicate) has been accidentally omitted.† Casts of 22 are in the Office of the Fund—the remaining three include two duplicates and one illegible stamp.

No. 20, הושע צפן.—A second impression from the same stamp was found at J, but owing to defective stamping the first two letters of the upper line do not appear. No. 30 also contains the same names. The first name, Hosea, is common in the Old Testament. The second name, which occurs also in No. 29, is not found in this form in the Bible, but the root combined with the Divine name appears in the name צפניה Zephaniah, signifying "Jehovah protects."—No. 21, שבניהו [ע]זריהו.—Three impressions of this stamp were found, the identity being proved by measurements between corresponding letters. On one the edges of the

* In No. 27, Pl. 56, for "J" read "Sn."

† The poorer specimen of the two is No. 5, Pl. VII, *Q.S.*, 1900, p. 219. On the better specimen the upper line is seen to read שלם, *i.e.*, Shillem (Gen. xlvi, 24), or Shallum (2 Kings xv, 10).

enclosing oval are scaled off, destroying parts of the letters; on the second the lower line is badly stamped, on the third (the one drawn) the upper line is complete (save for the right bar of the initial *shîn*), while the lower line is imperfectly stamped, but shows space for a small letter between the first letter preserved and the prolongation of the curve of the oval. The first name, Shebaniah, is found in 1 Chr. xv, 24, and in its shorter form שבניה in Neh. ix, 4, etc. Gesenius suggests the meaning "whom Jehovah has made to grow up." Assuming that the missing initial letter of the second name is the small letter *'ayin*, we get the form Azariah ("whom Jehovah helps"), found in 1 Kings iv, 2.—No. 22, לנחם עבדי.—The first name, נחם, means "consolation," and is found in 1 Chr. iv, 19, where it is transliterated Naham. The second name, עבדי, 'Abdi, is according to Gesenius, for עבדיה ("servant of Jehovah"); it occurs in Ezra x, 26.

No. 23, שבניה עזריה.—Both names found on stamp 21 appear here, but in their shortened form. The first name appears to contain four letters, the last resembling a *cheth*. The resultant quadriliteral שבנח is manifestly an impossible reading. Microscopic examination shows that what appears to be a single final letter may be resolved into a *yod*, closely followed by a *he*, the horizontal strokes of which are exceedingly faint, owing to unequal pressure in stamping. The final *he* of the lower line has met with a similar misfortune. The second name occurs in this shortened form in Dan. i, 6. The whole name reads Shebaniah Azariah.—No. 24, מנחם [ל]בנה. The first name Menahem ("Consoler") is the name of one of the kings of Israel (2 Kings xv, 14). The *cheth* is much blurred, but the same type, with two horizontal bars, occurs in No. 28. The lower line is much blurred. The third letter is clearly a *nun*, the last is probably a *he* (though the defective stamping permits us to guess also at *yod* and *cheth*), and traces of the first two letters permit us to offer the reading לבנה, Lebanah. This, signifying "the white one," used poetically for the moon, is found as a proper name in Ezra ii, 45, and Neh. vii, 48.—No. 25 is imperfectly stamped, but it is clear that it is quite a different type from those described above. It shows a symbol, with four wings curved upward, the feathers of which are sharply indicated. Below this are faint traces of the tops of several letters. It may possibly be a variety of the royal stamps.—No. 26, מכא.—On this stamp only the lower line appears, showing three letters followed by a perfectly clear symbol, which thus cannot be taken for a blurred letter, and which seems to be an ear of corn.

מכא may conceivably be the last three letters of a word commenced on the upper line, or more probably constitute a shortened form of מיכא, Micha, found in Neh. xi, 17, and signifying "Who is like Jehovah." The still longer forms, מיכיה and מיכיהו (Michaiah) occur in Neh. xii, 35, and 1 Kings xxii, 8, respectively.—No. 27 (or, (יהוכל) לרפתי יהואל.—The first name, רפתי (Raphti) is not found in the Old Testament. The root occurs once (Hab. iii, 17) in a plural noun translated "stalls." The second name, is probably Jehucal ("one who has been strengthened"), *see* Jer. xxxvii, 3. On the specimen drawn the fourth letter (not clear on the jar handle) is represented as an *aleph*, but on two other specimens of the same stamp (otherwise imperfect) this letter is probably a *caph*. We should note, however, that יהואל, though not found as a name in the Old Testament, is a perfectly legitimate combination of the Divine names, and would signify "Jehovah is God." The reading "Yehokal" is maintained by M. Clermont-Ganneau (*Q.S.*, 1899, p. 354).—No. 28, לעזר חרי.—The name עֵזֶר Ezer ("help") is found in Neh. xii, 42 and 1 Chr. vii, 21 ; the name עַזֻּר Azur ("helper") in Jer. xxviii, 1, Ezek. xi, 1, etc. The large size of the *'ayin* and its oval shape are to be remarked. The first letter of the second name is plainly *cheth*, and the last *yod*. The top of the middle letter is blurred, but corresponds generally to *resh*. Accordingly we read חרי, Hori, found as a proper name in Gen. xxxvi, 22, and Numb. xiii, 5*.—No. 29, לצפן א[ב]מעץ.—In this stamp the pressure has been unequally applied, so that the lower right corner of the ellipse does not appear. The upper line reads לצפנא, and the lower מעץ–, with space for another letter before the מ. On the assumption that the four letters of the upper line constitute a single word, the quadriliteral צפנא presents difficulties. צפן, however, is a name found on stamps 20 and 30. Between the *nun* and *aleph* a small vertical mark may be observed; that this is part of the design is suggested by the following considerations:—(1) The relief in stamping is precisely similar in character to the relief of the letters; (2) if we ignore it, the distance between the last two letters appears to be a trifle too great. A similar mark interpreted as a hyphen between two parts of the word separated by the head of the symbol, is found on No. 14. In the present case we would suggest that it is the

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* For the second name M. Clermont-Ganneau reads חגי *Haggai* (*Q.S.*, 1900, p. 253).

equivalent of a modern printer's dash, dividing two words. The *aleph* would thus belong to the name in the lower line, preceding the missing letter before the three letters מעץ. The root, מעץ, signifying "wrath," appears as a personal name in the simple word Maaz (1 Chr. ii, 27), and in a compound form in the name Ahimaaz (אחימעץ—"brother of wrath," (1 Sam. xiv, 50). Possibly the lost letter may be a *beth*, in which case we would get an analogous form אב־מעץ—"father of wrath." As this does not occur in the Scripture, the suggestion is offered very tentatively.—No. 30, הושע צפן.—Similar to No. 20.

The name on the seal (Fig. 44) is not stamped upon a jar-handle, but upon a bit of clay, which shows at the back the impression of a cord, indicating that it was attached to a document or used in sealing up a jar. It reads כברה. The root involves the meaning of *strength* and *magnitude*. The noun כִּבְרָה originally means *length*, and derivatively a definite measure of length, translated in Gen. xxxv, 16, xlviii, 7, and 2 Kings v, 19, as "a little way"—a meaning plainly inapplicable in the present instance. The noun כְּבָרָה, translated "sieve" in Amos ix, 9, is equally inappropriate here. Possibly it may be a local name for a definite measure of capacity, in which case the stamped clay was used to seal up a jar of such capacity. The root meaning permits this view. Or, again, it may be a woman's name (as feminine names end in *he*), signifying "the great, *i.e.*, the important, person." The name on the seal (Fig. 45) is impressed upon a bit of black wax, showing the markings of cloth on the back, with which possibly was sealed the small jar in which it was found. Below a two-winged creature, resembling a bird, is a beautifully fine inscription reading . . . לשמר נ, the wax being broken off after the fifth letter. Shemer is the name of the man of whom Omri bought the hill of Samaria. (1 Kings xvi, 24), and the name Shomer occurs in 1 Chr. vii, 32.



FIG. 44. INSCRIBED SEAL.



FIG. 45. INSCRIBED SEAL.

III. *Potters' stamps with devices, Pl.* 56.—No. 31 is a bad imitation of a thirteenth dynasty scarab. No. 32 shows a figure hunting a stag. No. 33 represents a horse. No. 34 shows a man with staff in hand, carrying some object on his shoulder. Nos. 35–43 show different patterns conventionally developed from a flower. No. 44 has the well-known ancient

sign called by the modern Jews "Solomon's seal." This also appears in the nail mark, No. 53, and in the early potters' mark, No. 42, Pl. 29.

IV. *Nail marks, Pl.* 56.—These consist of dots, circles, crossing lines, etc. No. 55 is possibly the letter *yod*. Some of these may belong to pre-Israelite times.

F. J. B.
R. A. S. M.

Note added in the Press. In Lidzbarski's *Ephemeris für Semitische Epigraphik*, vol. i, part ii, pp. 179, 184, are notes on the above described jar-handle stamps, in the course of which the following variant readings are suggested:—No. 24, [ש]בני for [ל]בנה. No. 26, מכאל [impossible], or [ת]מכא for מכא. No. 28, חגי for חרי. On the seal (Fig. 44), כברה may possibly be the name of a place.

R. A. S. M.

CHAPTER V.

POTTERY: SELEUCIDAN PERIOD.

(PLS. 58–64.)

THE Seleucidan ware drawn on these plates was all found at Tell Sandaḥannah, whence the omission of the indication of *provenance* on some of the plates. At this site, besides countless fragments, over 400 vessels were found, the majority intact. They included a great variety of styles, and we were thus enabled to classify under this period certain types, found also at other sites, which had previously been classified in general with Jewish ware. Special interest attaches to the discovery of some 150 lamps, which supplied a link in the historical chain of the development of the lamp in Palestine. The pottery of the period includes Greek imports, such as the large Rhodian amphoræ with stamped handles, Pl. 64, and the apparent "Samian" ware, Pl. 61. Some of the plain types are Jewish survivals, as Nos. 6 to 11, and 16 to 21, Pl. 60, but a general Greek influence is seen in others. During this period the method of ribbing the bodies of vessels, which becomes very pronounced in Roman times, begins to appear.

The vessels figured on Pls. 58 and 59 are all made of fine, smooth, light red paste: the surface colour varies from reddish-brown to light drab, according to the intensity of firing; in some cases we get a great variety of surface colouring on the same jar; in others the clay is burned to a uniform drab colour all through the thickness of the ware.

Pl. 58.—Jugs 1 to 4 are of one type: globular body, ring base, large neck, and one handle; the handles of Nos. 1, 2 and 4, are flat, with three grooves down the surface in Nos. 1 and 4; No. 2 has one groove, and shows the characteristic finger-streaks of the period; the handle of No. 3 has a ridge down the middle. No. 1 is decorated with two bands of dark Indian red; the counterpart of No. 4 appears in Petrie's "Naukratis," Part I, No. 3, Pl. XVII, and is classed with Roman pottery, on the ground that in the well in which it was found there occurred terra-cotta figures which were common in the 1st century A.D. No. 5 is a long, two-handled vessel, tapering to a point;

the top is broken away; it is faintly ribbed. No. 6 suggests the Jewish cooking pots (Pl. 54), but has a wider mouth, and flat instead of rounded bottom, with distinct edge between neck and body. No. 7 is of the same type as No. 3, but has a rounded bottom; the handle has the characteristic finger-streaks. The large pot, on broad disc base, No. 8, shows the broken stump of a handle on either side of the mouth, but as there are no corresponding attachments on the neck or sides of the vessel, the handle must have curved over the top, like that of a basket. The bowl No. 9 has a hollow disc base and is without handles. The pointed bottom jug, No. 10, has a very wide mouth and shows the characteristic finger-streaks on the handle. No. 11 (*see* No. 8, Pl. 22) suggests the "pilgrim-bottle" type; it is of thin ware, roughly globular in form, but having the opposite sides curiously elongated; it has broad vertical ribbing; the neck is set on crookedly and the handles are hand-made and finger-streaked; two other specimens were found at Sn, and one at Z. A similar form was found by Petrie with Greek pottery of the 6th century B.C. at Tell Defenneh (*see* "Tanis," Part II, No. 29, Pl. XXXIV), but with smaller handles. The type appears to have come down in Palestine to much later times. Petrie says (p. 65), "It seems unmistakably the parent of the long barrel-shaped pilgrim bottles of the second century A.D. such as are found at Tanis." No. 12 is a pot with hollow disc base, two small loop handles, short shoulder and broad neck. No. 13 is almost the exact counterpart of No. 11, Pl. 49, except that in the present case the burnishing is on the natural face without wash; as it is the only vessel found in the Seleucidan stratum of Tell Sandaḥannah with the old type of burnishing, we conclude that it survived from an earlier period indicated by the lower Jewish stratum. Nos. 14 is of the same type with Nos. 1, 3, 4 and 5, Pl. 60. It differs from Nos. 15 and 16 in its uniformly tapering body. The mouth of No. 16 has an under-cut band moulding.

Pl. 59.—Nos. 1 to 3 are jars of one type, but differ in size. No. 1 (*see* No. 5, Pl. 22) has a ring base, the lower part of the body is semi-spherical in shape, forming a sharp angle with the shoulders, which slope slightly up to a long, tapering neck; the handle is somewhat flat, and has a double groove; the shoulders and body are ornamented in plain bands of dark Indian red. In No. 2 the curvature between shoulder and body is continuous; the handle (similar in form to that of No. 1) is set on crookedly; the mouth is slightly spouted, a quadrant round from the handle; the jar has been similarly decorated, but the colours are much faded. In No. 3 the edge

between body and shoulder is very distinct; a brownish-red wash is found in the upper part of the jar, but does not extend much below the edge; other partially painted vessels may be seen on Pl. 60; a jar almost identical with No. 3 was found by Petrie at Naukratis (*see* "Naukratis," Part I, No. I, Pl. XVII), and classed by him with Roman pottery (*see* above). No. 4 is the upper part of a jar similar to the above, but having an elaborately moulded handle. Nos. 5 and 6 (*see* No. 3, Pl. 22) are two-handled pots characterized by wide necks, expanding at the top in a sort of shelf, horizontal in the case of No. 5. The handles are broad, flat below and convex above, stuck on crookedly in the case of No. 6, a feature common in this period. No. 7 (*see* No. 14, Pl. 22) has been selected for drawing from eight specimens of one type with minor variations; the handle is marked with finger-streaks, as is common in this ware. Fig. 46 shows a flat, circular flask of the pilgrim-bottle type.

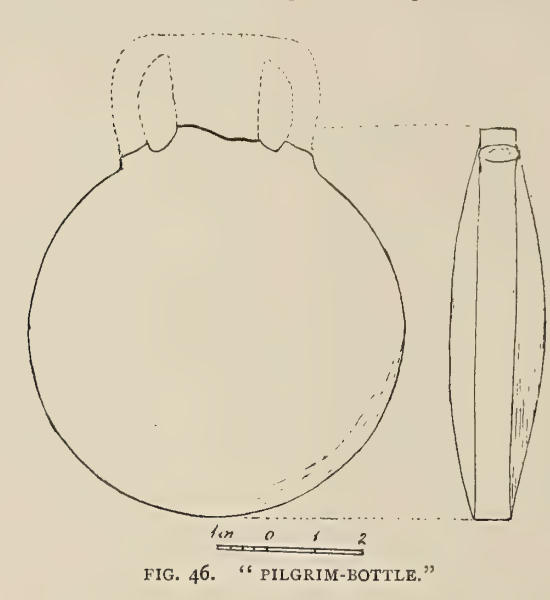


FIG. 46. "PILGRIM-BOTTLE."

Pl. 60.—Nos. 1, 3, 4 (*see* No. 16, Pl. 22), and 5, with No. 14, Pl. 58, are of one characteristic type: jugs with long body tapering uniformly to the mouth; the mouth of No. 1 has a roll-moulding, slightly under-cut; it is distinctly ribbed; the handle is finger-streaked; the upper part of No. 5 is covered with a red wash. In this type the base is sometimes stamped with the pattern seen in the base of No. 10.* No. 2 is more like an ordinary jug, with the side curving outwards to the rim. Nos. 6 (*see* No. 10, Pl. 22) to 11 (*see* No. 11, Pl. 22) are characteristic ointment vessels of one type, having oval body, and elongated neck and foot. In No. 10 the diameter of the body is scarcely greater than that of the neck and foot. In No. 9 the expansion of the body is the greatest; the foot widens out at the base, which is sometimes moulded, and usually is stamped with a wheel ornament (*see* No. 10). The mouth has a band mould (Nos. 6 to 9) or a bevel-mould under-cut (Nos. 10 and 11). The ware is the same as above, except in the case of No. 9, which is

* This mark is common on modern Syrian ware.

of a very fine grey paste, polished. An undrawn specimen was found covered with a red wash. This type was developed in late Jewish times, specimens being found with the lamps with thick base* (Nos. 3 to 5, Pl. 66), which never occur with Seleucidan ware and with other late Jewish types. As, however, the greatest number were found with Seleucidan ware, they are included in the later series. The more graceful form, No. 9, with more purely oval body, reproduces the earlier type, though this specimen is late. The stumpy forms, Nos. 6 to 8, appear to be more characteristic of the later period. The cooking pots (Pl. 54) were developed earlier than the ointment vessels, but like these, lasted into Seleucidan times. The later specimens are ribbed. Nos. 12 to 15 (*see* No. 15, Pl. 22) are juglets selected from twelve specimens of the same type. No. 12 has a plain rim, slightly spouted. In 13 to 15 the rims are moulded. In all cases the upper part is covered with red wash, daubed on carelessly. The bases have the wheel stamp seen on No. 10. No. 14 will not stand upright. Nos. 16 to 19 have the same range as the ointment vessels, being found with the thick-based Jewish lamps. The handles are streaked down by the fingers. The heavy bevel-mould on the rims of Nos. 18 (*see* No. 7, Pl. 22) and 19 is characteristic. These two are faintly ribbed. No. 20 is the counterpart of the rude black juglets, Nos. 18 to 21, Pl. 53, but is made of yellow paste. No. 21 is of the same general type as Nos. 16 to 19, but has pointed base. No. 22 (*see* No. 19, Pl. 22) has a short spout projecting horizontally from the side. Two other specimens were found at Sn and one at J. No. 23 is unique, and resembles a modern teapot. It is made of very fine light grey paste (similar to that of No. 9), highly polished. It stands on a ring base ; at the top the body expands into a cup, nearly all broken away, having a strainer of six small square holes, through which liquid could be poured into the pot. The short cylindrical spout has two raised rings at its end. The side is ornamented with seven rows of short, vertical strokes, incised. Nos. 24 to 29 represent a very common type of bowl, over seventy-five whole specimens having been found at Sn, besides countless fragments. They are made of light red paste, fairly fine, burning to various colours. The shapes are often distorted, owing to careless drying before firing ; the characteristic base is flat ; they differ from the common pre-Israelite bowls figured on Pl. 34, in the inward curving of the rim, in the smaller proportion between height and diameter,

* This combination was common in the Jerusalem excavations.

and in having sometimes a faint ribbing. (The ribbing is more distinct on two examples not published.) Nos. 30 to 36 (for No. 32 *see* No. 13, Pl. 22) are also a common type, twenty-two whole specimens having been found. They differ from Nos. 24 to 29 in the following particulars:—The clay is finer and lighter, the bases are of the ring form, the rims are much thinner, and the bowls are covered, in whole or in part, with a carelessly applied wash, red, or black and red, in patches, which sometimes extends within. Nos. 37 and 38 are bowls of the same light paste, with rims turning downwards, a feature to be noticed in Nos. 2, 21, and 26, Pl. 61.

Pl. 61.—The plates and bowls Nos. 1 to 19 and No. 21 are made of very fine light yellow paste, covered with a red glaze, and resemble the so-called Samian ware. They are probably imports. The ornament stamped inside the base of No. 4 (concentric circles formed of oblique dashes) is apparently meant to represent a wreath, more naturally treated on No. 14; similar stamps are found on Nos. 3, 5, and 6. In No. 2 the rim is ornamented with an egg-and-tongue mould, above which there is a row of fillets; the elegant pointed bowl No. 15 (*see* No. 17, Pl. 22) is finely ribbed almost to the top, but the ribbing is interrupted by a row of small heads in relief, the features faintly indicated; No. 19 is a fragment of a bowl of the same shape, the base is ornamented with an elaborate floral pattern, above which is a procession of Centaurs; Nos. 17 and 18 are fragments of dishes, with floral ornaments in relief, No. 17 having in addition a frieze of goats running. The beautiful shallow dish or tray, No. 21, has a diameter of 18 inches; as in No. 2, the rim is turned down and ornamented with fillets and an egg-and-tongue mould. Nos. 20 and 22–28, are of ordinary ware, in contrast to Nos. 1 to 19 and 21. Nos. 20, 23, and 24 are of the same type with Nos. 24–29, Pl. 60, but No. 20 lacks the incurved rim* and Nos. 23 and 24 are larger. No. 22 resembles in shape the large pre-Israelite bowls Nos. 11 and 15, Pl. 34. Nos. 26 to 28 (*see* No. 1, Pl. 22) are of the same light ware as Nos. 30–38, Pl. 60: No. 26 (*see* No. 4, Pl. 22) has the downward curved rim of No. 2 and No. 21; inside the base is a secondary circular depression; it is covered with a red and black wash; No. 28 has two curious handles, each shaped like a double loop.

Of the 150 lamps belonging to this period found at Tell Sandaḥannah,

* No. 20 represents a type common at Z.

35 have been selected to illustrate the various types. For their place in the development of the lamp in Palestine, *see* p. 130.

Pl. 62.—Nos. 1 to 3 are plain unornamented lamps, 44 specimens of which were found. The commonest type is seen in Nos. 1 (*see* No. 12, Pl. 22) and 2: flat or concave base; circular, partially closed bowl; long, tapering spout, forming a distinct angle with the bowl; raised circular rim, in contrast to the merely ringed rim found on the other types of this sheet. The ornamented lamps have rudely circular bowls; slightly concave bases; long spouts, straight or tapering; and no distinct rim at the opening of the bowl. In Nos. 4, 5, 6, 16, 17, and 18 the ornament is symmetrically disposed on a circular bowl; in Nos. 7 and 11 the symmetry of the ornament (but not of the shape) is disturbed by the introduction of a second pattern at the right; on No. 8 the additional pattern to the right (in the form of a double scroll) very slightly interrupts the symmetry of the circle as well; on No. 9 (*see* No. 18, Pl. 22) this same double scroll projects from the circle to the right as a sort of knob; Nos. 10 and 20 have similar projections to the right, but of different patterns; Nos. 12, 13 and 19 show knobs to the left as well as to the right; on No. 12 the two patterns differ from each other; on No. 13 (*see* No. 2, Pl. 22) both have the double-scroll form. As a rule the ornamentation consists of plain lines, zigzags and circles, but Nos. 6, 16, etc., have more elaborate patterns; No. 19 is ornamented with two Cupids; No. 21 shows a hand in relief; No. 14 has no spout. All the lamps in this sheet but No. 15 are of reddish clay; the types 3 to 21 (15 excepted) are usually covered with a grey or more rarely with a red wash. No. 15 is of the same ware as vessels Nos. 1 to 19 on Pl. 61. In the centre is a funnel, open at top and bottom, perhaps designed for carrying the lamp on a stick; or to permit a draught of air to run through the oil reservoir, keeping the oil cool and thus preventing evaporation.

Pl. 63.—Nos. 1, 4, 5, and 6 have knob-like projections at the right, but not ornamental as in the case of Nos. 9 and 10, Pl. 62; in Nos. 4 and 6 these are pierced. No. 1 is of the fine yellow "Samian" ware with red wash; the letter A is inscribed on its base; the spout is wedge-shaped, as in No. 9. No. 3 is of the same type as Nos. 12 and 13, Pl. 62; No. 5 has a fan-shaped termination; Nos. 2 and 7 to 13 are of one type, being distinct from all the others both in material and form. The clay is a very fine black paste; the spouts are wedge-shaped, horizontal as in No. 9, or curving upwards as in No. 7 (*see* No. 6, Pl. 22); the handle is looped up behind, and sometimes

ornamented with a double band as in No. 7; the mouth is partially closed, and is surrounded in the case of 2 and 9 with three small holes, beyond which is a distinct upright rim, characteristic also of 10 and 11. All are ornamented: No. 2 with a wreath, No. 7 with a two-leaved clover; 10 with floral design, etc.; the base of 13 also has a floral design. On the base of No. 10 are the Greek words **ΦΙΛωΝ ΕΠΟΕΙ** (Philo made it) in reversed characters. Except the A on No. 1, no other potters' marks are found, unless the graffiti (Fig. 47) painted on two sherds belong to this class. The triple lamp, No. 14, is of unpainted red ware; the three spouts curve upwards.

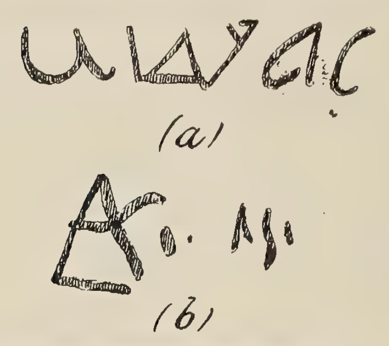


FIG. 47. GRAFFITI PAINTED ON POT-SHERDS: TELL SANDAḤANNAH.

Pl. 66 illustrates the development of the lamp in Palestine. No. 1 (*see* No. 14, Pl. 20) is the earliest type of lamp known, dating from pre-Israelite times: a bowl with rounded bottom and plain rim pinched at one end to form a spout. This lasted into Jewish times. In the eighth century it was in general supplanted by the Greek development of the same type, No. 2, with flat brim, necessarily contorted in the "bending in" to form the spout. This type is further developed in No. 3, where we find a flat instead of a rounded base; in the late Jewish lamps, Nos. 4 and 5 (*see* Nos. 7 and 8, Pl. 21), the bowl is shallower, with flat upper surface; the base has become thick and clumsy; and the whole technique is ruder. In Fig. 48 a transition between the open and closed types may be seen; a lamp is partially closed by bringing together the sides at one point near the spout. By Seleucidan times the open type appears largely to have given way to the closed lamp, types of which are figured on Pl. 62; minute open lamp-forms, however, may be seen ornamenting the rims of large vessels, as in the fragment from S, No. 11. We are inclined to think that the open type never entirely disappeared: specimens closely resembling the early Phœnician lamp are made in Palestine to-day; this suggests the survival of a simple natural type, though of course it may be only a reversion. Attention should again be called to the form of the Seleucidan closed lamps: a circular body, with straight or tapering spout, which forms a distinct angle with the curve of the bowl, in contrast to the typical Byzantine form, No. 6, where the curve of the body is continuous to



FIG. 48. LAMP WITH CLOSED WICK-CHANNEL: TELL ZAKARÎYA.

the top of the spout, giving a generally oval shape. This plate includes several specimens of multiple lamps. No. 7 is a seven-spouted lamp, probably of the Jewish period. Nos. 8 and 11 are fragments of the well-known late type of open-mouthed jars, where the rim is ornamented with minute lamps, set side by side, but not contiguous. No. 9 is analogous, but in this case there runs round the brim a circular tube, pinched in at regular intervals, and having round holes in the top for wicks. No. 10 is a small flat tray with five grooves, connecting with five circular wick holes.

The subject of stamped inscriptions on the handles of imported wine jars belongs less to Palestinian than to classical archæology, and the present is not the occasion to discuss them fully. Excluding duplicates, a series of 328 of these handles was found at Tell Sandaḥannah, and a catalogue of them contributed by Mr. Macalister to the *Quarterly Statement* for 1901. It is unnecessary to repeat this list, and we refer to it for particulars of each handle. We content ourselves with repeating here the more legible inscriptions (omitting duplicates bearing the same name with different months), with references to other sources where stamps including the same name have been found. These references are not claimed to be exhaustive, and are merely given in order to show that the handles so stamped are not unique.

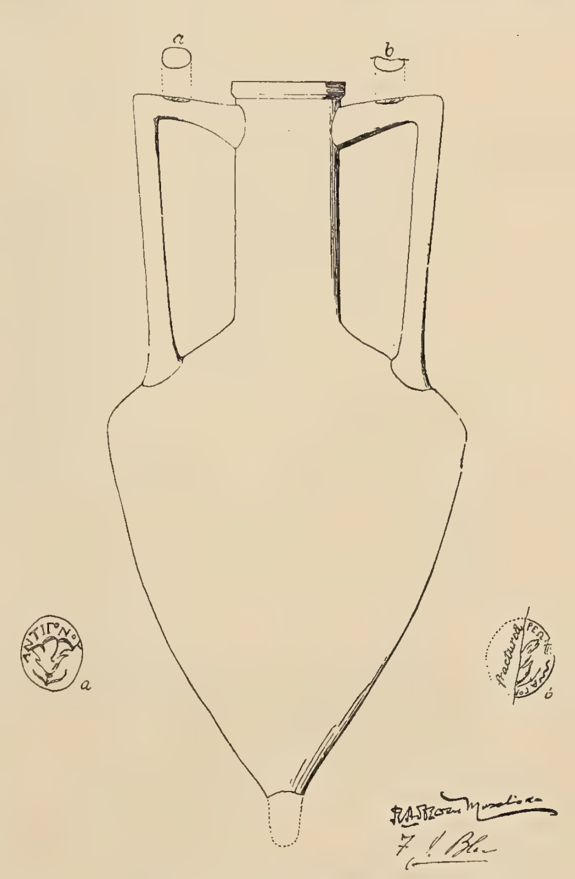


FIG. 49. RHODIAN AMPHORA: TELL SANDAḤANNAH.

Fig. 49 shows the one unbroken jar bearing handles with these stamps which was discovered.

The inscriptions* contain (*a*) the name of the magistrate or priest

* The notes on the Rhodian jar handles are by Mr. Macalister.

eponymous of the year in which the jar was, stamped or (*b*) the name of the merchant, probably the wine merchant, and (*c*) the month of the magistrate's year of office. There were always two stamps on each jar, containing these three items of information between them ; consequently no stamp bears all three. The magistrate's name is distinguished by the prefixed preposition *ἐπί.*

A few representative seals are shown on Pl. 64, where examples of the devices ornamenting the seals will be seen. These are territorial (as the Helios-head and the rose, emblematic of the island of Rhodes), or personal (as the anchor, caduceus, etc., which are always associated with certain names). It is to be understood that the stamps here quoted from other places frequently belong to different *months*, or in other ways are varieties of those from Sandaḥannah.

The months, with the number of handles found at Sandaḥannah stamped with the names of each, are as follows :—

Θεσμοφόριος (7)	Δάλιος (16)	Ὑακινθίος (17)
Θευδαίσιος (0)	Σμίνθιος (14)	Πάναμος (16)
Διόσθυος (2)	Αρταμίτιος (16)	Πεδαγείτνυος (2)
Βαδρόμιος (4)	Αγριάνιος (12)	Κάρνειος (6)
	Πάναμος δεύτερος (2)	

The following is a list of the decipherable inscriptions. (The numbers refer to illustrations in the plate.)

'Αγαθιτόδορος Πανάμου.
'Αγαθοκλεῦς (Pergamon, Olbia, Kertch).
'Επὶ 'Αγεστράτου Ὑακινθίου (Pergamon, Sicily).
(1) 'Αγήμονος (Pergamon, Olbia).
'Αγήσιλα (cited in Dumont, *Inscriptions céramiques de Grèce*).
(2) 'Επὶ 'Αγλουμβρότου (Pergamon, Kertch).
'Αγορανάκτου Καρνείου (Pergamon, Olbia, Sicily, Alexandria).
(3) 'Αθανοδότου (Pergamon, Sicily, &c.).
'Επὶ Αἴσχινα Ὑακινθίου (Alexandria).
'Ακτάρωνος.
'Αλανίκου.
'Αλεξάνδρου Δαλίου (Alexandria).
'Επὶ 'Αλεξιμάχου 'Αρταμ(ι)τ(ί)ου (Sicily, Alexandria).
(4) 'Αμύντα (Pergamon, Alexandria).
'Επὶ "Ανδρια 'Αρταμιτίου (Alexandria).
'Επὶ 'Ανδρονίκου Δαλίου (Alexandria).
'Ανθισοδώμου Σμινθίου.
'Αντιγόνου (cited in C.I.G.).
'Αντιμάχου (Sicily).
'Ανυχαρὸς 'Αγριανίου.
'Απολλο[δώρου] (Olbia).
'Επὶ 'Αρατοφάνευς (Pergamon, Cyprus).
(5) 'Επὶ Αρι. Εὐφρο.
"Αριστα.
'Επὶ 'Αριστάκου 'Αρταμιτίου.
(6) 'Αριστάρχου Α. Σ. (Pergamon, Olbia).
'Αριστίωνος (Pergamon, Olbia).
(8) 'Επὶ 'Αριστογένευς Πανάμου (Pergamon).
'Αριστοκλεῦς (Pergamon).
'Επὶ 'Αριστομάχου Ὑακινθίου (Sicily, Alexandria, &c.).
(9) 'Επὶ 'Αριστοφάνευς μῆνος 'Αρταμιτιου (Alexandria).
'Επὶ 'Αρίστωνος Καρνείου (Pergamon, Alexandria).
'Επὶ 'Αρμόσιλα (Kertch, Telos).
'Επὶ 'Αρχιδάμου Βατρομίου (Pergamon, Olbia).

(12) Ἐπὶ Ἀρχιλαΐδα Διοσθύου (Alexandria).
(18) Ἐπ' Ἱερέως Ἀρχοκράτευς (Pergamon, Sicily).
Ἀττάλου.
Ἐπὶ Αὐτοκράτευς Θεσμοφορίου (Alexandria).
Ἄφος.
(11) Βίου (Olbia).
Βίως.
(14) Βρομίου (Olbia).
Ἐπὶ Γόργωνος Ὑακινθίου (Olbia, Alexandria).
Δαμοκλεῦς (Pergamon, Olbia).
Δαμοκράτευς (Pergamon, Athens, Sicily).
Δασοφίλου.
Διοδότου (Pergamon, Olbia).
(15) Διοκλῆς Ἀρταμι.
Διονυσίος (Pergamon).
Δίου (Pergamon, Alexandria).
Διοφάντου (Alexandria).
(55) Δίσκου (Pergamon, Sicily).
(16) Δρακόντιδα (Alexandria, Sicily).
(17) Δωροθέου (Pergamon, Olbia, &c.).
Ἑρμο[ῦ] (Olbia).
Ἐπὶ Εὐδάμου Ἀρταμίτιου (Olbia, Sicily).
(19) Εὐκλείτου (Sicily, Alexandria, Olbia).
Ἐπὶ Εὔκλευς (Kertch).
(52) Εὐφράνορος (Alexandria).
Ζήν(ων)ος (Pergamon, Alexandria).
(36) (Ἀ)στ(υ)νόμου Ἡμιούτου . . . . . υ.
(21) Ηρακλείτου (Pergamon, Olbia).
Ἐπὶ Θανοδότου Ὑακινθίου.
(7) Ἐπὶ Θαρσιπόλιος Καρνείου.
(22) Ἐπὶ Θαρσιπόλιος Πανάμου δεύτερου.
Ἐ(πὶ) Θεαιδήτου Σμινθίου (Pergamon, Sicily).
Ἐπὶ Θερσάνδρου Σμινθίου (Alexandria).
Ἰάσονος (Pergamon, Alexandria).
(50) Ἱερόκλη Καρνείου.
Ἐπὶ Ἱέρωνος Δαλίου (Pergamon, Olbia, &c.).
(24) Ἶμα (Pergamon, Sicily, Lycia, &c.).
Ἱπποκράτευς (Olbia, Lycia).
Ἰσιδώρου (Alexandria).
(23) Ἐπὶ Καλλικράτιδα (Pergamon, Olbia, &c.).
Καλλίους (Pergamon, Alexandria).
(25) Κλεανάκτου.
Ἐπὶ Κλεάρχου.
Κλειτομάχου (Pergamon).
Ἐπὶ Κλεωνύμου (Pergamon).
(26) Κοῖλος (?).
Ἐπὶ Κράτιδα Δαλίου (Pergamon, Olbia).
Κρέοντος (Pergamon, Kertch).

(27) Ἐπὶ Κύδου Ἀγριανί.
Λίνου.
Λυσάω.
Λυσίων.
Μαγνῶρος Πανάμου.
(28, 29) Μαρσύα Πανάμο, &c. (Pergamon, Athens, Olbia, &c.).
Μενεκράτευς (Alexandria).
Μένιππος.
Μέντορος Δαλίου.
Μένωνος Πανάμου.
Μίδας (Sicily, Alexandria, &c.).
Μόλυ Πανάμο.
(31) Ἐπὶ Μυτίωνος (Kertch).
Μόκλευς.
Μόλβρινος Θεσμοφορίου.
Νάνιος (Pergamon, Olbia).
Νεμίου Ἀγριανίου.
(30) Ἐπὶ Νησιπότου.
Ἐπὶ Νικασαγόρα Ἀρταμιτίου (Pergamon, Kertch).
Νικοστράτου.
(33) Ἐπὶ Ξενοφάνευς Πεταγειτνύου (cited in C.I.G.).
Ἐπὶ Ξενοφῶντος Ἀγριανίου (Pergamon, Sicily).
Ὀλύμπου (Pergamon, Olbia).
Ὀνασιοίκου (Pergamon).
Πανσανία (Pergamon, Olbia, Alexandria).
Ἐπὶ Πειθιάδα.
Ἐπὶ Πεισιστράτου Δαλιου (Olbia).
(35) Ἐπὶ Πολυαράτου Ἀρταμιτίου (Olbia).
Ἐπὶ Πολύκρα. Σμινθίου.
Πολύχαρμος.
(34) Ῥόδωνος (Kertch).
Σακράτη Θεσμοφορ.
Σαραπίωνος (Pergamon, Olbia).
(32) Ἐπὶ Σιμυλείνου.
Σμινθίου (Pergamon).
Στρατονίκου.
Ἐπὶ Σωδάμου Πεδαγειτνύου (Olbia, Telos, Nisyros).
(38–40) Σωκράτευς (Pergamon, Telos).
(49) Ἐπὶ Σωσπάτου Ὑακινθιου.
Σωτηρίδα.
(41–42) Σωτήριχος (Pergamon, Olbia).
Ἐπὶ Τείων Ὑακινθίου.

'Επὶ Τιμοξίκου 'Αγριανίου (Sicily, Alexandria).
'Επὶ Τιμοθέου Δαλίου (Sicily).
'Υόχο.
'Επὶ Φεῖδα.

(43) Φιλαινίου Δαλίου (Olbia).
'Επὶ Φιλωνίδα.
Χρή.
Χρυσήμου.

The following stamps, figured for the sake of their symbols or for some palæographica peculiarity, are not fully legible.

(10) 'Επὶ 'Α . . . . ίμου Δαλίου.
(13) 'Ασ . . . ιλα Διοσθύου
(20) 'Επὶ Εὐ . . . άτιδα
(37) Σω . . . βου

(44) . . . Αρταμίτιου.
(45) . . . Δαλίου
(46, 47, 54) illegible.
(51) + Ιλαν . . . Μορ . . .

53, 56, 57, 58 are other stamps occasionally found in addition to the ordinary seals, possibly having reference to the quality of the wine.

Though our detailed treatment of the pottery has been limited to the pre-Roman periods, we add a sheet of Arab fragments, Pl. 65, chiefly to illustrate the difference between the methods of colour decoration in the Arab and pre-Israelite periods, as owing to a certain curious mutual resemblance, fragments of the later period might, at first glance, be relegated to the former * (compare for example No. 4, Pl. 65, with No. 6, Pl. 36). In the first place the Arab patterns are almost exclusively geometric, lacking the characteristic curves, spirals, and animal motives of the earlier ware (*see* Pls. 36–42). In the second place, the pigments used in Arab times are richer and *fatter*, producing a dull gloss over the whole surface, whereas in earlier times a polished appearance is due to burnishing the ware before the ornament is applied.

F. J. B.
R. A. S. M.

* Nos. 1 to 5 were found in one of the souterrains of Tell Zakarîya, which are undated. They are classed with Arab ware on the ground of their resemblance to modern decorated ware of local make. We are inclined to believe that the very similar fragments figured on pp. 478, 479, of the "Recovery of Jerusalem," and classed there with Græco-Phœnician pottery, are also Arab. They were found at a depth of 19 feet in the Muristan, but at what exact point is not stated. To the same class belongs a vessel found under the establishment of the Sisters of Zion at Jerusalem, which is now deposited in the Louvre (numbered 10 in the Section of Palestine Antiquities Catalogue, p. 18).

CHAPTER VI.

POTTERY: HUMAN AND ANIMAL FORMS.

PLS. 67–70.

ON these plates are grouped specimens of the pottery of various dates which show attempts to reproduce human and animal forms, including rude idols or *teraphim*, plaques, spouts of vessels, masks, etc. These fall into three classes:—

1. *Early human forms. Pl.* 67.—No. 1 (found in the "rubbish heap" at S) is probably the neck of a vase, as the top of the head has a hole with distinct rim. It is of rough red unpainted ware, hand made; the eyes and breasts are indicated by bulging dots; the chin (or tongue) by a rude projection; it appears to date from very early times.* No. 2 was found deep in a pre-Israelite stratum; it is evidently the cover of a vessel; the upper part is solid, but is drilled through with a small hole; it is ornamented with three vertical lines in dark Indian red on the back, and three horizontal lines, only one of which surrounds the body; there are also red stripes on the arms, and the eyes are indicated by red dots; so rude is the figure that it is impossible to determine whether it be human or animal; it bears a certain resemblance to a seal. The face of No. 3 is broken away, but the bulging eye that remains suggests the early technique of No. 1; the hair is coarsely represented by thick raised ribs, round the neck is a collar; this head was formed separately from the statuette to which it belongs, as shown by the tenon designed for insertion in the body. No. 4 was found with pre-Israelite coloured ware; the eyebrows are indicated by rows of incised lines, the eyes by narrow slits with round projecting eyeballs; cheeks and breasts are protruding, dabs of red colour are found on throat and back; the stump of one arm appears; it is hand made. No. 5 is a fragment of a very rude figure, hand made. No. 6 is of the same type;

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* It is probably a foreign importation; it resembles a type of vase-head common in Troy, and several times illustrated in Schliemann's "Ilios."

the features are indicated by three dots, and the arms by mere stumps, which are intact; hand made. It is probably early.* No. 7 appears to be a phallus, rudely carved from chalk into the figure of a man; it is ornamented with rough lines in red paint. No. 8 is of the same type as No. 6. No. 9 is a rude head, with bulging eyes, on long neck, cut at the end so as to fit into socket; probably early. Nos. 10 to 16, and 1, 2, Pl. 68, are plaques or fragments of plaques made of red clay, with flat or slightly convex back. The figures are in relief. The female forms with prominent hips are Phœnician in type, but the head-dresses and extended arms bearing lotus plants appear to show Egyptian influence. These plaques belong to early pre-Israelite times, No. 2, Pl. 68, coming from City III at Tell el-Ḥesy, where owing to the overlying bed of ashes the stratification was undisturbed; the city dates about 1450 B.C. In No. 12, Pl. 67, the arms are curved round the breasts.

Pl. 68.—The grotesque head, No. 3, recalls the early figure, No. 4, Pl. 67; the head is hollow, with closed flat top; eyes and mouth are cut through the clay; one eyeball is indicated by a pellet of clay inserted in the eye slit, the other has fallen out. Nos. 4 to 10 come from late Jewish strata, and are contemporaneous with the handles inscribed with potters' names compounded with the name of Jehovah. Thus we have a confirmation of the statements in Scripture that the heathen forms of worship still continued in Judea side by side with the orthodox religion. Phalli are also found in connection with the above types. Some of the head-dresses seem to be copied from Egyptian models. The heads, Nos. 4 and 7, show tenons for insertion with separately formed bodies. No. 9 is in the form of a partly hollow stand (compare with Fig. 108, Vol. II, P. and C., "Phœnicia"). In No. 7 the hair is conventionally represented by a series of small squares. In No. 8 the same technique appears to form the lapel of the head-dress, though it may possibly indicate hair in this case also. Pointed caps may be noticed in Nos. 8 and 10. No. 10 is covered with a white wash, the cap being ornamented with lines of red, black lines appear round the neck of No. 9. The curving of the arms under the breasts in Nos. 9 and 10 is a common Phœnician characteristic (*see* P. and C., "Phœnicia," Vol. II, Figs. 99 and 104).

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* Similar figures have been found by Mr. Evans at Knossos.

2. *Animal Forms. Pl.* 68.—No. 11 is a barrel-shaped vessel (lamp?) evidently meant to represent some animal. The head and tail are broken off, but four stump legs remain. There is a circular hole in the back; it is Jewish. Nos. 12 to 17 are spouts of small vessels in the form of animals' heads. No. 17 was found with Jewish ware; it is the head of a horse, with bridle or halter indicated. Nos. 12 to 16 are cows' heads of one type, relegated by the painted and burnished specimens, Nos. 14 and 16, to pre-Israelite times. They are characterized by rings round the hollow eyes and at the end of the tube-shaped snout. The eyes of No. 16 are of the solid bulging type seen in early human figures.

Pl. 69.—No. 1 is also a spout in the form of a cow's head. It has the characteristic early ring-mouth; the eyes are painted in purple, and bands of the same colour appear round the neck. No. 2 is the snout of a large cow, but not used as a spout; it is covered with red wash and burnished in the earlier manner; the eyes are bulging; the mouth is indicated by incised lines. No. 3, in red drab ware, appears to be the fore part of a dog. Nos. 5 and 6, in rough red ware, appear to be camels' heads, and the curious projection in the rudely-formed No. 4 may be meant to indicate the camel's hump. No. 7 is a minute animal, perhaps a dog. No. 8 is made of fine dark paste covered with a white wash. It is the figure of a cow, hollow, and with very thin sides. Most of the head is gone, but one horn remains. This type is common in Cyprus 1200–1000 B.C. The specimen figured was found at S near the surface, while we were digging round the foundations of a tower connected with the Blanche-Garde of the Crusaders, but as these were sunk in ancient débris, it may easily belong to an earlier period. No. 9 is the rude figure of a horse, probably Jewish. No. 10 is a dove (the sacred bird of Astarte), found with Jewish ware. Fig. 50 shows a head-rest, in the form of a dove, found also with Jewish pottery. No. 11 is a pre-Israelite spout of black clay, red-faced, and burnished, ornamented with incised lines. It represents the head of some monster with open mouth and stumps of horns. The eyes are circular, with balls clearly

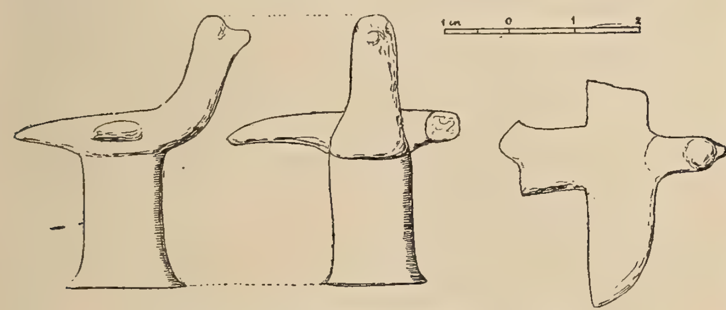


FIG. 50. HEAD-REST IN FORM OF A DOVE.

indicated. No. 12 is a hollow rim of a vessel ornamented with rude figures, possibly goat and kids. Fig. 51 is probably a human figure, with birds' head,



as breasts are clearly indicated.



FIG. 51. BIRD-HEADED FIGURE.

3. *Late Figures. Pl.* 70.—All these, with the exception of Nos. 14 and 15, were found in the rubbish heap at S. Nos. 1 and 2 are unique as far as we know, but the smooth surface of the ware suggests Greek pottery. They are figures of a horse and rider so indefinitely moulded that the horse is barely to be distinguished from the rider. No. 1 was found first, and suggested no form whatever till its meaning was explained by the discovery of No. 2. Here the horse's ears, mane, and mouth are fairly well indicated. The rider is seen to wear a helmet, but his features are barely traceable, and his arms merge into the horse's body. No. 3 is the fragment of a small plaque, showing two figures wrestling. No. 4 is the fragment of a female figure, with one arm curved under the breast, and with hand pressing an asp to the bosom. No. 5 is a fragment of a figure with hand pressing an asp to the thigh. In the fragment No. 6 the hand clasps the breast. Examples of No. 7 were also found at Tell Sandaḥannah, dating the type as Seleucidan. It is a very badly moulded female figure, draped below the waist, holding the feet of a child seated on her shoulder. No. 8 is of the same type of ware as the mask series to be described later. No. 9 is the fragment of a figure with ægis. No. 10 is a specimen of a dozen fragments of one type, representing the Mother Goddess or Goddess of Fertility, as shown by the clear indication of pregnancy.* It represents a seated female figure so badly moulded that the face, arms, etc., are indistinct. All the figures are hollow, with back unworked and almost flat. The specimen illustrated is broken off below the knees; a veil falls on both sides of the face, and was possibly meant to appear as though drawn over the knees, as no legs appear; the breasts and abdomen are apparently uncovered; one hand rests on a knee, and the other is bent so as to rest against the body below the breasts. A smaller and somewhat better moulded figure was found at Sn, which appears to relegate the type under consideration to the Seleucidan period. Nos. 11 and 12 are two rude hollow figures of a

* This type is common in Cyprus. *See* P. and C., "Phœnicia," Fig. 143, Vol. I.

Græco-Phœnician type representing Astarte. Unfortunately the heads are gone. In the first the right hand is broken off, and the left arm is bent so that the hand rests on the body between the navel and the breasts. In the second both arms are broken off at the elbows. Round the neck is a high collar. No. 13 is a female head with an Egyptian head-dress, and two red lines painted on the neck. No. 14 is the fragment of a camel with man in tunic seated on a saddle-cloth decorated with incised dots arranged as a border. The figure is hollow, and the back unworked. The charming fragment of a figurine, No. 15, is distinctly Greek. A nude woman is represented as arranging her hair. The body is painted a natural flesh colour, the hair is brown, and a scarlet band (unfortunately destroyed when a cast was taken) crossed the right shoulder and the breasts. A figurine of almost similar pose and technique (though in this case the hair falls from under a head-dress) was found by Petrie at Naukratis (*see* "Naukratis," II, No. 12, Pl. XVII).




FIG. 52. STATUETTE FROM A TOMB: TELL SANDAḤANNAH.

The statuette (Fig. 52) was found in an unrobbed tomb near Tell Sandaḥannah, and appears to belong to the Seleucidan period. It is evidently a Venus or Astarte. The figure, which is 11¼ inches high, is hollow, being made in two parts fitted together with a distinct edge. It rests on a stand with a triple

moulding, the feet being in relief against a solid background. A long cloak, moulded into conventional folds, depends from the shoulders, entirely covering the back, but leaving the breasts, body, and part of the right leg bare, being caught up above the left knee by the left hand. It is held in place at the neck by a band, and furthermore by sleeve-holes, through which the arms pass. The right hand clasps the left breast. The head-dress is a closely-fitting "sun-bonnet," with a circular, serrated top, ornamented in front with seven stars in relief. The hair is wavy* in front and caught up in a knot behind under the bonnet. Armlets and bracelets are represented. The figure, which is of fine light clay, appears to have been covered with a neutral wash, with the main lines accentuated in yellow and black paint. Thus the eyes and brows are black, the lips yellow, the hair black-brown, the drapery yellow and black.

In the rubbish heap at Tell eṣ-Ṣâfi were found over 100 fragments representing at least forty different masks. The *oscilla* in terra-cotta, Fig. 13 (p. 39), represents the type. They are made of fine smooth clay, burning yellow; the surface shows traces of a white wash, together with ornamentation in red. They are in the form of female heads, with hair moulded to represent braiding, and with round eardrops in the ears; the head-dress is semi-circular at the top, falling straight on either side of the neck, with finished edge behind a hole in the top for suspension. The features have a strong Græco-Phœnician cast, peculiar to Cypriote statuary. One very rude fragment may possibly represent a male. A few much smaller specimens were found. In an interesting note in the *Quarterly Statement* for 1894, p. 209, the Rev. J. E. Hanauer connects this type of mask with the *oscilla* or little face of Bacchus suspended in the vineyards. It should be noticed that these masks have no openings for the eyes, such as may be seen in a terra-cotta mask in the Louvre from Byrssa, Carthage (*see* P. and C., "Phœnicia," Vol. II, p. 68). Another mask from this place (*ib.*, App., p. 440) appears, however, to be similar in all respects to the specimens found by us. With the face-masks were found several fragments of hollow convex plaques, each plaque being moulded so as to show the front section of a female figure, with finished edge behind. The best preserved fragment shows one hand and the lower drapery, and as this terminates in a distinct edge at a point above the place for the knees, it is clear that the figure was not intended to be

* For waved hair, *see* P. and C., "Phœnicia," Fig. 124, Vol. I.

complete. No. 8, Pl. 70, is a smaller fragment, showing only a hand clasping the breast.

In the same rubbish heap were found twelve small heads, some quite classic in design, including head of Silenus, head of warrior with helmet, etc. (*see* Fig. 14, p. 40); * an obscene figurine representing a Satyr with hoofs and horns painted vermilion, height 4½ inches; and the three fragments of male figures shown in Fig. 53. These are of one type, but differ from each other in fineness of execution. The best moulded is the central figure, which has a long beard, the end of which is clasped by the right hand; on the head is a round flat cap, from under which a veil falls on the shoulders; the hair is braided, and the features have a strong Semitic cast; the back of the figure is unworked; present height 11·8 centimètres. The figure to the right is seated; the right hand clasps the beard; the cap is pointed, having a knob at the top and side lapels. The figure to the left is very badly moulded and proportioned, but the rough indication of a hand clasping the beard relegates it to the same type with the other two figures.

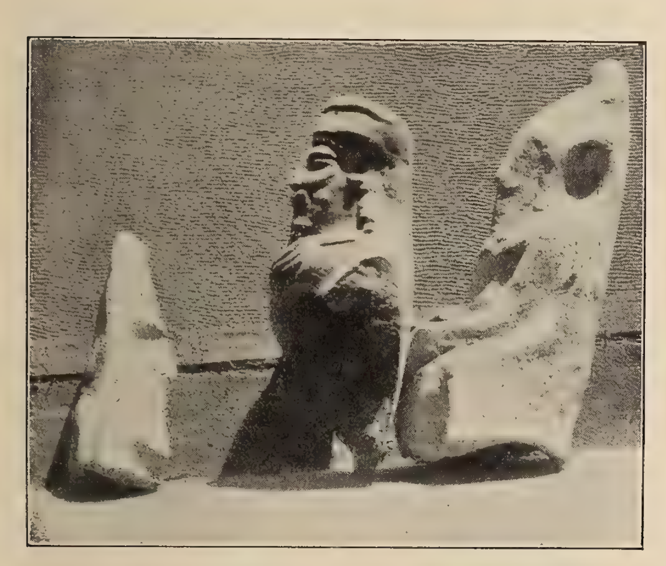


FIG. 53. †MALE FIGURES IN TERRA-COTTA: TELL EṢ-ṢÂFI.

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R. A. S. M.

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* The small head, No. 2 in this series, was found at Tell Sandaḥannah.

† A front view of these figures is given in *Q.S.*, 1899, p. 328.

CHAPTER VII.

OBJECTS IN STONE, BONE, BRICK, BRONZE, AND IRON.

(Pls. 71–81.)

Section A, *Stone Objects.*—*Pl.* 71 shows a small selection from the hundreds of flint implements found. These occur at every site, and belong to every period but the Seleucidan. For centuries they existed side by side with the more expensive implements in bronze and iron, and were not driven out by them till about the fourth century B.C. The absence of secondary chipping on the simple flakes is noticeable, only two specimens of this technique having been found. This is curious, in view of the fact that in the Museum of the Augustinians at Jerusalem are numerous flints from the neighbouring Sûr Bâḥir, on which the secondary chipping is found, though in a somewhat coarse form. However, as numerous cores show that a flint manufactory existed at this place, we may assume that the finer specimens had been removed in ordinary course of trade. After the early pre-Israelite period the flints do not differ much from age to age, consisting of long, small knives, denticulated or otherwise, and of broad small pieces, which may have been inserted in a handle to form a sickle (*see* Nos. 251–254, p. 124, M.M.C.). The types, however, which are found with the earliest forms of pottery are eminently characteristic both in form and technique. The long, wonderfully thin knives, rounded at one end and pointed at the other (No. 21), are never found after this period. The edges, which are almost transparent, are still so sharp, after almost 4,000 years, as to cut a stout string. Some specimens are 7½ inches long. Another characteristic early type is the large scraper, No. 1, probably used for skinning animals; when complete, this must have been 10 inches long; Nos. 2, 5, 8, and 9 are smaller specimens of the same type.

Plates 72 and 73 include a selection from the many miscellaneous stone objects found. For example, out of a large number of ordinary "pounders" only two are drawn. *Pl.* 72, No. 1, is a fragment of a very rude image or *taraph* in soft limestone; it occurred in the late pre-Israelite stratum.

Nos. 2 and 3 are limestone bowls; No. 4, a cup with sloping sides and moulded solid foot; Nos. 5 and 6 are in the form of an open box with shallow depressions; the bottom and sides of No. 5 show incised lines. No. 7 is similar, but has a handle.

Pl. 73.—The elegant vase No. 1 was found at S, below the level of the pre-Israelite "temple"; it is of Egyptian form. The material is a grey marble, beautifully veined in the manner of serpentine; it is oval in form, with two flat handles placed against the side, and with a tenon at the base for fitting into a mortice; the top is broken. No. 2 may possibly be the frame of a small window (this is not drawn to the scale of the rest of the sheet, being 20 inches high); the long inner edges are bevelled, and a channel is made in the short ends; a similar object was found at J, belonging to a late period. No. 3 is a shallow dish. No. 4 is a hammer-stone, with depressions for the fingers; Nos. 5 and 6 are pounding-stones; Nos. 7 and 11 are jar or bottle stoppers, of soft limestone; the type is common, specimens being found early. No. 8 is of limestone, too soft for a pounder; it may be a weight. No. 9 is a circular perforated stone of a common type. No. 10 is a small slab of stone with grooves cut each way



FIG. 54. CORN-RUBBER, SHOWING METHOD OF USE.

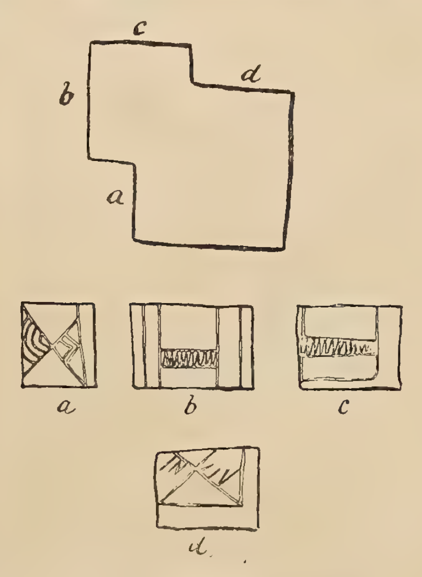


FIG. 55. ORNAMENTED STONE OF UNKNOWN USE: TELL ES-ṢÂFI.

on both sides. Nos. 12 and 13 are flat discs perforated. Nos. 14 and 15 show incised ornaments. No. 16 is restored from fragments; it is an alabaster jar. No. 17 is an alabaster ointment vessel that could easily be

broken in the fingers (*see* Mark xiv, 3); it is of the Seleucidan period. No. 18 is a seal with a monogram at base. No. 19 is a minute marble cup; No. 20 is a large alabaster cup. No. 21 is a rude limestone head of the Seleucidan period. Other stone objects of this period have already been described in connection with Pls. 18 and 19.

Many corn-rubbers are found, especially in the Jewish strata. These consist of a lower and upper stone; the lower stone is sometimes 18 inches long, convex at back and slightly concave on the face, with rounded sides; the upper or rubbing-stone is smaller, with convex back and (sometimes) flat face. In Fig. 54 the rubbers may be seen in use. Among other ordinary stone objects found were many spindle-whorls, catapult-balls, roof-rollers, mace-heads, etc. Fig. 55 represents a curiously-shaped stone with geometrical ornament on the sides, found at S. Fig. 56 shows three limestone slabs ruled for a game, probably draught boards. They were found at Z, in the upper stratum of débris. Similar fragments occurred in quantities in the Seleucidan town at Sn. No. 1 is the most complete; it shows a flat upper

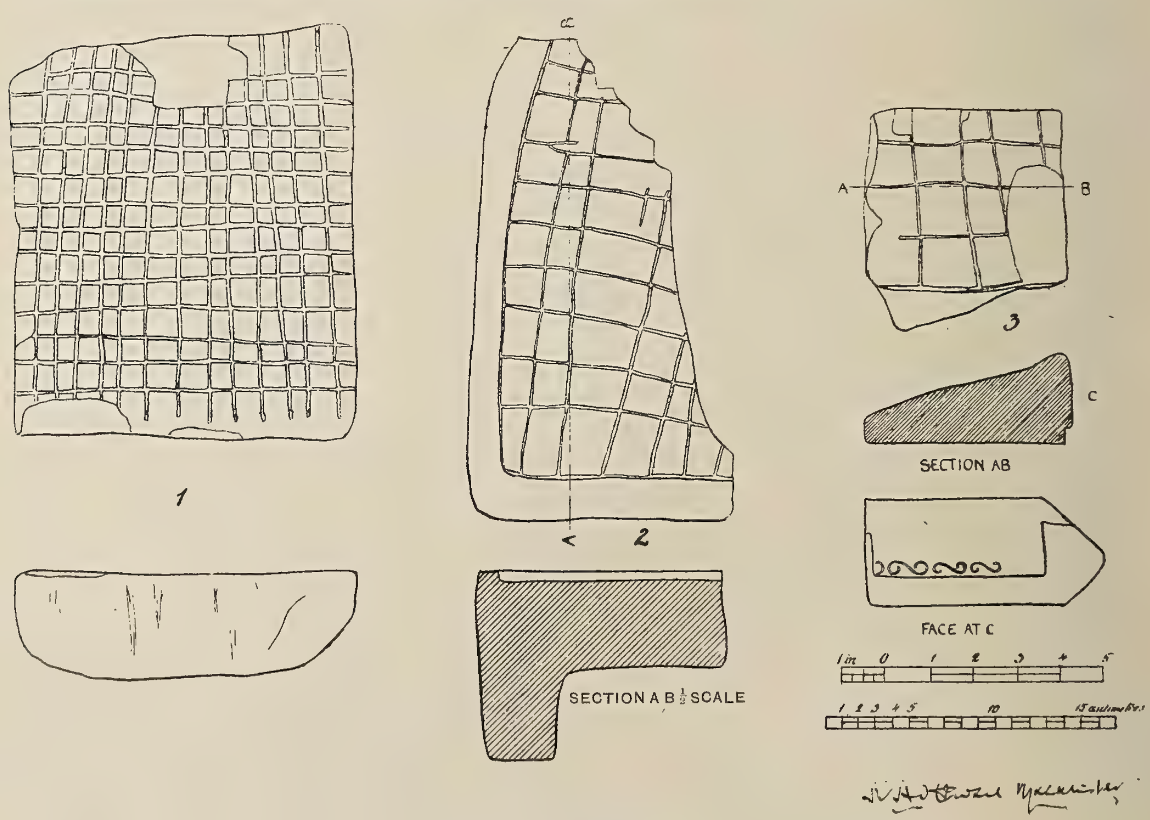


FIG. 56. STONE DRAUGHT BOARDS.

surface, and contains thirteen lines ruled each way, roughly at right angles, and forming squares of different sizes, the largest being about 1½ centimètres (0·59 in.) each way. The ends of each of these lines project beyond the last line of the other group, but there are evidently intended to be only 144 squares. The fragment, No. 2, belongs to a similar board which apparently had four legs. The crossing lines are even more irregular than in No. 1, and terminate in a raised border. In fragment No. 3 the playing surface is concave, and one side is fitted with a mortice as though to hold the board in a horizontal position ; the side has a faintly-cut scroll pattern.

The groups of objects represented on *Pl.* 74 were found together, immediately under the surface, at J. They are all made of very fine limestone, and are of the same general technique. As it is highly improbable that a group of large objects should all have been shifted from a lower level, they are to be relegated to the period of the last constructions, *i.e.*, that of the Græco-Roman villa and associated buildings. No. 4, the most interesting of the series, is unfortunately broken at the bottom. It is evidently the upper part of a Table of Offerings, 18 inches square, pierced with five semicircular holes, 3 inches deep. It has sloping sides resting on a rectangular base. No. 1 is a shallow circular dish on a solid foot, in shape the frustrum of a cone. No. 2 is a rude saucer. No. 3 is a flat stone indented by a cup-mark, from which two grooves extend to the edges. The bottom of the cup is connected with the surface by a drain-hole. No. 5 is a stone box. Fig. 20 (*see* p. 43) shows a stone mould in two parts for casting a small bell, including the clappers, and an enlarged sketch of the bell, which is elaborately decorated. It was found in the rubbish heap at Tell eṣ-Ṣâfi.

FIG. 57. INSCRIBED WEIGHT: TELL ZAKARÎYA.

The following weights were found :—

1. A small dome-shaped weight of red stone with flat base weighing 10·21 grammes, inscribed נצף, "half" : a hitherto unknown Hebrew root.* 2. Weight of similar form and inscription, white stone, 10 grammes. 3. Weight of similar form and inscription, light red stone, 9·45 grammes. These three were found at Z, within 5 or 6 feet of the surface. 4. Weight of red stone, 45·5 grammes. Inscription רצ (*see* Fig. 58), Tell Zakarîya.

* For a discussion of this weight by M. Clermont-Ganneau, based on its resemblance to similarly inscribed weights in the possession of Dr. Chaplin and Mr. H. Clark, *see Q.S.*, 1899, pp. 207–209. The inscriptions in fig. 57, are, of course, from two different specimens.

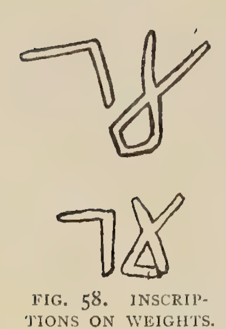


FIG. 58. INSCRIPTIONS ON WEIGHTS.

5. Weight of white stone, 44·6 grammes. Inscription similar to that on No. 4. The mark on a weight of 2·921 ounces troy (about 90 grammes), found by Dr. Guthe at Jerusalem, was explained by Professor Petrie to be ΓȢ for "3 ounces" (Γ = 3 and Ȣ = *ου* for *unciæ*). The present weights are half that amount, and are inscribed 7Ȣ for 1½ ounces. 6. A white stone weight of 93 grammes. Inscription (Γ ?) Ȣ : the first character is doubtful: Tell ej-Judeideh. 7. Large cone-shaped weight, 119 grammes. 8. Dome-shaped weight with flattened top, 91·5 grammes. 9. Dome-shaped weight of polished black stone, 90 grammes. 10. Weight of similar form, 88 grammes. 11. Weight of red stone, 62 grammes. 12. Dome-shaped weight, polished black stone, 47 grammes. 13. Dome-shaped weight, red stone, 45 grammes. 14. Shuttle-shaped weight, black stone, 26 grammes. 15. Dome-shaped weight, grey stone, 15·02 grammes. 16. Circular white stone, ground off flat at end, 11·53 grammes. 17. Dome-shaped weight, black stone (possibly metal), 9·75 grammes. 18. Shuttle-shaped weight, black stone (possibly metal), 6·37 grammes. 19. Weight of red stone, 5·85 grammes. 20. Weight of red stone, 5·18 grammes. 21. Small weight, black stone (possibly metal), 3 grammes.

Near the "Barracks" at Tell Sandaḥannah were found two large pieces of the limestone slab or plaque, Fig. 59. A third fragment is missing. It represents a nude male figure in relief, standing in a doorway between two columns, with rude capitals; the left foot is trampling upon some object (unfortunately mutilated). The plaque is probably Seleucidan.

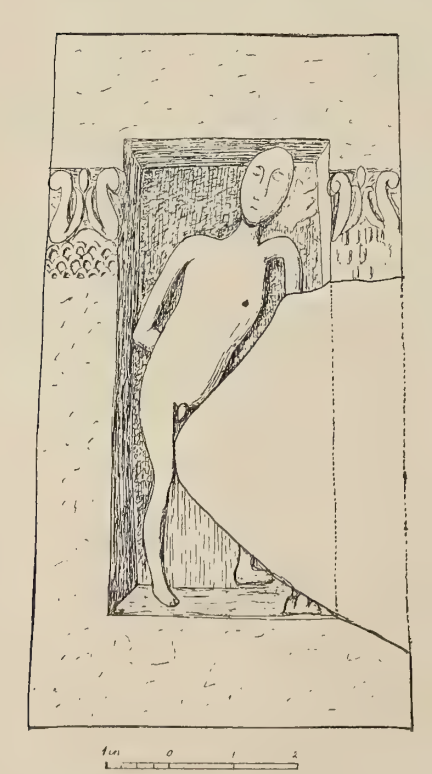


FIG. 59. ENGRAVED STONE PLAQUE: TELL SANDAḤANNAH.

On *Pl.* 75 is represented a selection of the best among a large number of specimens of small stone statuettes of a well-known Cypriote type, found in the rubbish heap at S. They do not differ in any essential respect from examples already known from other sources. The necklace of pendant beads represented on one of the torsos is perhaps worth a passing notice. On several fragments there were evidences of red colouring remaining. The Tell eṣ-Ṣâfi fragments seem to belong to a date late in the earlier style, or early in the later style, of the art which they represent. We shall probably not be far wrong in dating them about 500 B.C.

SECTION B. *Bone Objects, Pl.* 76.—All the objects on this plate (except Nos. 19 and 23) are from Z, but most of them represent types common to all sites. Nos. 1 to 8 are different types of *styli* for writing on tablets of soft material. At Tell

el-Ḥesy they were found in the first city and not again till near the top of the tell, that is, in pre-Israelite and in late Jewish times, but work at other sites show that their use was continuous from earliest times into the Seleucidan period. The commonest types are Nos. 1 and 3, thin, almost flat, highly polished strips of bone, rounded at one end and pointed at the other ; fine markings as that of a file appear at the sharp point of No. 1. Other specimens are concave, while No. 8 shows an almost elliptical section. For an unusually large specimen, *see* No. 5. No. 9 is the fragment of a needle, cylindrical at the point but flattened at the fracture. Nos. 10 to 16 are prickers, common in the pre-Israelite and Jewish periods, consisting of small bones unworked, except for a hole in the top and for the sharpened end. No. 17 is a pin, polished and pointed, with a hole in the top. Nos. 18 and 19 are narrow thin strips of bone, cut obliquely at the ends ; one side is polished and ornamented with diagonal lines (sometimes crossing), incised and painted in black ; on 18 and 19 small circles may be seen ; 18 *a*, *c*, *l*, and *p* are perforated ; they were found in a late pre-Israelite stratum.* No. 20 is a perforated disc, too small to be a finger ring ; 21 and 22 are spindle-whorls ; 23 is an arrow-head. Fragments of ornamental pins are shown in No. 24. The top of No. 25 is cut in the form of a pomegranate. It may be a chessman.

Pl. 77.—All the objects in this plate were found at S. No. 1 is a pre Israelite object of unknown use, consisting of a cylinder, ending in a semi-spherical head, and drilled with a semi-circular hole. No. 2 is similar but more ornate ; it is shaped like the capital of a column, with rosette ornament, terminating in a U-shaped socket ; this was found in an early Jewish stratum. No. 3 dates from late pre-Israelite times, and appears to be an archer's wrist-guard, consisting of a plano-convex strip of bone, pierced with two holes, and ornamented with lines at the extremities. No. 4 is a spindle-whorl of ordinary type, with ornamentation, highly polished. No. 5 (late pre-Israelite) appears to be part of a bracket, with two holes for fastening. No. 6 may be a pendant, ornamented. No. 7 is an object of unknown use, consisting of the half of a long bone, split longitudinally, sawn off smooth at the ends, and ornamented with chevron pattern in relief. No. 9 (pre-Israelite) is a rounded disc, turned up at the end and pierced with three holes ; it is highly polished. No. 10 probably dates from the Jewish period, as it was found at a depth of

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* Mr. Macalister suggests that they may have been used in a game, such as dominoes.

12 feet in a trial shaft on the N.E. plateau. It appears to be an incense boat. The vessel was found complete and the cover in fragments, one of which was missing. The cover fits on to a depression in the top of the boat, and was designed to turn on a pivot, which once ran through the two corresponding holes marked A. Of the drawings *a* represents a side view of the boat with cover *in situ*; *b* shows the cover: *c* represents the top of the vessel (cover removed); and *d* the bottom, showing the raised elliptical base. The perforations in the cover may be for letting the perfume through; the perforations at the two ends of the vessel itself may be for some further covering, now lost.

Section C. *Brick Objects.*—*Pl.* 78 shows eight varieties of objects of unburnt brick which are called weavers' weights in M.M.C. (p. 113). Numbers of these are often found together in the late pre-Israelite and Jewish strata. They are common at all sites. They range in shape from a globe to a truncated pyramid. They are always pierced with a hole, as if for suspension. The same plate shows analogous objects in stone: three pierced discs (very commonly found), and four varieties of slate spindle-whorls.

Section D. *Objects in Bronze.*—The object (Fig. 60), drawn in four positions, was found at Z. The figure is somewhat corroded, but appears to represent an amphibious creature, with the head and body of a man or woman, and the tail of a fish. Position *c* gives the best idea, and shows us a three-quarter figure with the head and tail in profile. The right shoulder is plain, and also the right arm, which is bent at the elbow to support an object (child or animal?) with its head nestling against the neck of the figure. This object is also clasped by the left arm of the figure, the left shoulder being indistinct. The nose and mouth are fairly plain. The tail curves upwards, and joins the back below the shoulder. The upper part of the figure suggests a female form, but the object clasped against the body prevents the breasts from appearing.

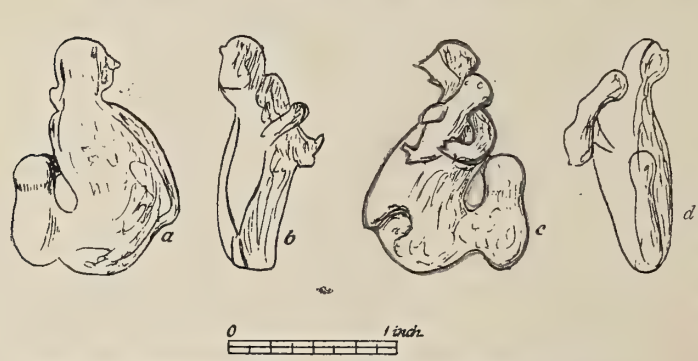


FIG. 60. BRONZE FIGURE OF ATARGATIS (?): TELL ZAKARÎYA.

This object was shown to M. Levy, of Paris, when visiting Jerusalem, and he suggested that it might represent the goddess Atargatis. We append a quotation from the article "Atargatis" in Hastings' "Dictionary of the Bible:" "In Palestine the principal seat of her worship was at

Ashkelon, where she was probably identified with the Heavenly Aphrodite (whose temple is named by Herodotus, I, 105). Another famous shrine of Atargatis was at Hierapolis or Bambyce (Mabug) on the Euphrates (Lucian, 'De Dea Syria,' 14; Pliny, 'Hist. Nat.,' V, 23). At both these shrines sacred fish were kept, and at Ashkelon the goddess herself was represented as a woman with a fish's tail (Lucian, *l.c.*; *cf.* Ovid, 'Metam.,' IV, 44–46). According to the Greek version of the legend, Atargatis, or Derceto (to use the shorter form of the name more commonly found in Greek), was a maiden inspired by Aphrodite with love for a youth who was worshipping at her shrine. By him Derceto became the mother of a daughter, but, filled with shame, she threw herself into the water at Ashkelon or at Hierapolis, whereupon she was changed into a fish (Diod. Sic., II, 4). According to Hyginus, 'Astron.,' II, 30, she was saved by a fish. The child, who had been exposed, was brought up at the temple of Aphrodite, and became the famous Assyrian Queen Semiramis." In connection with the mention of a child in the legend, it is interesting to note the object (possibly a child) clasped by the Tell Zakarîya figure. We may also append a paragraph from P. and C., "Phœnicia," Vol. II, p. 43: "She appears, perhaps, in one of her secondary forms on the flat of a rock crystal cone in the Paris Cabinet des Médailles. The figure is a very complex one. The bust is entirely that of a woman, and the tail that of a fish, but between the two appear the fore-quarters of a dog." In the drawing of the cone (*ib.*, Fig. 39) one arm is stretched out, with the index finger further extended; the tail does not bend back to the figure as in the Tell Zakarîya bronze, but curves behind in two loops.

Pl. 79 calls for little notice, as in general the objects figured are common to all sites and periods. Arrow-head No. 11 is late. The bending in of the metal to form the tang of No. 12 is curious. Very small arrow-heads like Nos. 15 and 16 are not uncommon. The spatulas are probably Jewish and late pre-Israelite; a Seleucidan spatula may be seen on Pl. 90. *Pl.* 80. The fine knife from J, No. 1, is probably Jewish.* The drawing of dish No. 2, *repoussée* with ornament in low relief, is a restoration from twenty-five small fragments found together in a Jewish stratum. No. 3 is a tetrahedron formed of three discs united by bars; use unknown. Nos. 4, 5 and 10 are nondescript fragments. Nos. 6 to 9 are fibulæ (brooches) characteristic of the pre-Israelite and Jewish periods.† The shape of No. 11 suggests a horse's bit, but it is too small. Nos. 12 to 15 are ordinary armlets and anklets. The pin, No. 16, terminating in a swan's head, was found near the surface. Fig. 26 (p. 60) is a handsome Seleucidan lamp found in the "Barracks" at Tell Sandaḥannah. Fig. 27 (p. 61) represents a flat circular weight, also from Sn.

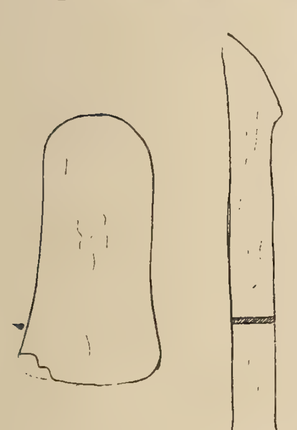


FIG. 61. BRONZE KNIVES: TELL ZAKARÎYA.

* Incorrectly marked Sn. on plate.

† These are probably of Western origin.

At the same site was found a small Cupid, of ordinary design, badly corroded. The bronze knives (Fig. 61) were found at Tell Zakarîya.

SECTION E. *Iron objects.*—No iron was found in the early pre-Israelite strata. At Tell eṣ-Ṣâfi it extended from the surface, through the Jewish stratum into the upper part of the late pre-Israelite stratum. At a depth of 5 feet in the Tell Zakarîya portion was found a large lump of iron fragments corroded together. On separating these we found them to consist of numerous iron scales, which once formed a small part of a cuirass.

The scales (which measure 5 centimètres in length by 3·5 centimètres across) are straight-sided, square at the top, and rounded at the bottom, and are slightly bent vertically, so as to be concave to the body. Four holes, arranged in a square, are pierced in the centre of the top of each scale, and two, one above the other, in the middle of each side. Adjacent scales are lapped so as to make the side holes correspond, and are secured by a U-shaped rivet of bronze, the free ends of which are bent over on the inner surface. By this, a series of rings was formed, each of which was then probably sewn on a cloth backing, the sets of four holes at the tops of the scales being intended for the thread. The latter detail, it is hardly necessary to say, cannot be proved directly, as every trace of cloth or thread has long since disappeared, but the absence of any evidence of bronze in the neighbourhood of these holes renders this explanation of their use the most probable. In two fragments the edges of the scales have been turned over so as to prevent them from cutting. These, in all probability, are portions of the collar. From the absence of any scales of greater than normal curvature, we infer that the arms were left unprotected. A few scales of different shape from the rest—rectangular below and invecked at the top—were also found; most probably these are part of the tasses of the lower hem. From the slight depth at which it occurred, we relegate this cuirass to a late period of the tell, Seleucidan or Roman.

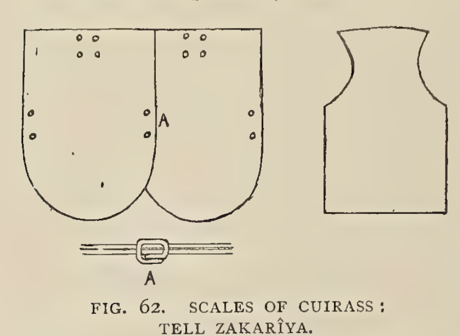


FIG. 62. SCALES OF CUIRASS: TELL ZAKARÎYA.

Pl. 81.—Nos. 1 and 2, fragments of knives; Nos. 3 and 4, large nails or bolts; No. 5, fragment of a door-hinge; Nos. 6 and 7, double ended chisels; No. 8, point of a spear; No. 9, tube bearing a thick screw thread; No. 10, a hasp; No. 11, fragment of horse-shackle (?); No. 12, door-catch (?); No. 13, sickle with finger-loop (?); Nos. 15–16, arrowheads; No. 17, armlet; Nos. 18 to 19, knives from Seleucidan period.

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CHAPTER VIII.

FOLK-LORE.

Pls. 82–88.

In this chapter are discussed objects of various materials and different dates which illustrate Folk-Lore. They fall under four classes, A. Pottery Deposits; B. Amulets (including scarabs, cylinders, etc.); C. Magical Figures; D. Magical Tablets.

A. *Pottery Deposits, Pl.* 82.—These are of two kinds:—(1) Those made outside the limits of a town. Such deposits were found in a sandy bank outside the town-enclosure of Tell el-Ḥesy (T.Ḥ., p. 32). The large jars were upright, and were often filled with white sand, distinct from the brown sand of the bank. Small vessels sometimes occurred inside the large jars, whose tops were in some cases covered by an inverted bowl. Animal bones were also found within them; the only suggestion of human burial was given by a wire circlet that might have been a child's bracelet. Small vessels also occurred independently of the large jars.

(2) Deposits made within the limits of a town. These were found at H, Z, and S, usually near the foundations of walls. At H they occurred chiefly in the strata dated from 1400 to 1000 B.C. Nos. 1 and 2, Pl. 82, are from Z. Nos. 3 and 4 from S. The relation of group No. 1 to the base of a wall is shown on the plate. Here we have two vessels: first a small bowl, tilted; second a large jar with four handles, also tilted on its side so that one handle rests within the bowl. In group 4 a large cylindrical jar is placed upright on its pointed bottom, and the mouth is closed in by a bowl, not inverted, in which lies a small jug. At S was found a large jar resting on its side, the mouth broken away to admit of the insertion of two jugs and a bowl which were found within. It was packed with fine earth, and contained small bones, apparently of birds. The most common combination is that of lamps and bowls. In group No. 2 we find four vessels: an upright bowl containing a lamp, filled with fine earth, covered by a second bowl (inverted and packed with earth),

above which is another inverted bowl. Where the bowls do not fit closely the intervening spaces are filled with fine earth; sometimes ashes are substituted. No. 3 differs from No. 2 in having but one inverted bowl. As to the purpose of these deposits the suggestion of Dr. J. G. Frazer, of Trinity College, Cambridge, would appear to apply to the first class, namely, that we may see in the jar burials an example of the widespread custom of going through a form of burial in the cases of persons whose bodies could not be obtained, as it was supposed that without the performance of funeral rites the soul could not find rest, and would trouble the survivors. We have referred the deposits of the second class to some ceremony connected with house dedication. As a rule these deposits date from the late pre-Israelite period, but group No. 4 may be Jewish, and at Tell eṣ-Ṣâfi the early jar No. 1, Pl. 23, was found upright, though empty and covered with a fragment of a dish showing the finer form of comb-facing characteristic of the early pre-Israelite period.

B. *Amulets, etc.*

The specimens of Egyptian writing found during the excavations were the following:—(1) Fragment of a stele (Fig. 21, p. 43). The letters are *r t s i̯ w t r t*, followed by the determinative of a man. (2) Lower half of an Ushabti inscribed as usual with the VIth chapter of the "Book of the Dead." (3) Thirty scarabs, Pl. 83. Evidently some of them, if not all, are mere Palestinian imitations of imported specimens, and are therefore of no value in fixing the date of associated objects. It is an elementary archæological canon that under the most favourable circumstances scarabs alone can give a *major* limit of date only; when the element of copying, perhaps long subsequent to the engraving of the original exemplar, is introduced, their chronological importance practically disappears.

The following is a catalogue of the scarabs figured on the plate. The dates given refer to the original exemplars in all cases, not to the existing copies:—

(1) Inscription *nbw*. Apparently XIIIth–XVIth dynasty (*c.* 2200–2000 B.C.). Bone. (2) Inscription *Mʾʿ-nb*. Amnhotp III. (3) Ring of *Mn-ḫpr-Rʿ* (Tahutmes III); on the one side *mn nb*, on the other *ʿʾnb*, "all things great and enduring." (4) Indefinite. (5) Representative of a type ascribed to Amnhotp III. (6) Inscribed *bi̯ti̯* "King of Lower Egypt." (7, 8) Figure of a horse, comparable with similar figures sometimes found on scarabs of Tahutmes III. Compare the potter's stamp, No. 33, Pl. 56, which is no doubt copied from an Egyptian original. (9) Ring of *Mn-ḫpr-Rʿ* (Tahutmes III) and figure of the god *D̠ḥwti̯* (Thoth). (10, 11) Inscribed *Wsr-Mʾʿ-nb*, *i.e.*, Ramessu II. (12) Two uræus-figures under a tree (?) Technique of Amnhotp III. (13) Rude copy of scarab showing a figure holding a *wsr* or sceptre. Below, *nb*.

(14) A lion, typical of *Ḥr* (Horus). Above *ʿnḫ*, the symbol of life. (15) Scarab of Tahutmes III resembling (3) and similarly inscribed—*Mn-ḫpr-Rʿ nb mn*. (16) The god-name *Ỉmn* (Amen) on one side; on the other the *wḏ't* or Divine Eye of Horus. (17) Ornament of the period of Amnhotp II. (18) Lioness and crocodile, typical respectively of *Ḥr* and *Sbk*. Above *Rʿ*. (19) Scarab of a type common in XIIIth dynasty. The same characters, which frequently recur on scarabs, cylinders, etc., reappear on a jar-handle from Tell eṣ-Ṣâfi, figured No. 31, Pl. 56. (20) Resembling (10, 11) and of the same period. (21) Perhaps a blundered copy of *ʿʿ-ḫprw-R ʿ* (Amnhotp II). Underneath *ḥḳ'* six times repeated, for *ḥḳ'w*, "lords." (22) Bears the name of the god *Ptḥ* (Ptah). (23) Inscribed *Mʿʿ-nb-Rʿ* (Amnhotp III) with a figure of the king (?) holding a *wsr*. (24) Inscription *Wsr-Mʿʿt-Rʿ-stp-n-Ỉmn* (Ramessu IV). (25) The same as (2), the determinative of a goddess being substituted for the figure of *Mʿʿt*. (26) Inscription *Stn biti* "King of Upper and Lower Egypt." The bottom of the scarab is fractured, but it no doubt bore the ⌓, completing the formula. (27) Scaraboid: on the back the ring of Tahutmes III. On the base figures of *Bs* and *Mʿʿt*, with the symbol *ʿnḫ*. (28) A *nb*-scarab of the XVth-XVIth dynasty. Inscription *Stn biti nb ʿnḫ nfr*, "King of Upper and Lower Egypt, gold, life, good." (29) Finger-ring of Amnhotp IV, or *Ḫ-n- Ỉtn*, inscribed with the name *Nfr-ḫprw-Rʿ-nb*. (30) Scarab. retaining the original bronze setting. Inscription partly broken away . . . *nfr ʿnḫ* ". . . good life."

The cylinders are represented on the same plate; they are four in number. (1) is a very rude copy of a Babylonian original, bearing the figures of two men and three animals. (2) is ascribed by Prof. Sayce to the third millennium B.C. It is Babylonian, and bears a representation of the combat of Mardûk and Tiamât; a worshipper, two sphinxes, etc. (3) is probably copied from an Egyptian original, having figures of *Ḏḥwti* and the feather of *Mʿʿt* alternating. (4) is again Babylonian, representing two priests with the sacred tree, the sun and moon, and two stags.

The three Babylonian seals (Fig. 16, p. 41), from the "rubbish-heap" at Tell eṣ-Ṣâfi, judged by their elementary technique, which shows a combination of simple lines and circular hollows, appear to date from an archaic period (*see* P. and C., "Assyria," II, p. 261). Nos. 1 and 2 depict religious scenes; in the first the priest stands before the altar, in the second before the sacred tree. No. 1 is of red stone, and Nos. 2 and 3 of onyx.

The amulets (*Pls.* 83, 84) are all Egyptian. *Pl.* 83, No. 1, is a not uncommon type, in bone. It represents a female figure, pregnant, with a high peaked cap and a girdle under the shoulders. No. 2 is a lion's head, typical of *Sḫt* (Sekhet) or else, in view of its grotesqueness, of Bes. It is of green enamelled paste, with the eyebrows and other prominent lines picked out in yellow. No. 3 is the head of *Bs* (Bes); green paste, the head-dress black and green, the eyeballs black. In *Pl.* 84, the first three,

probably also the fourth, are figures of the same god, in green enamelled paste. Nos. 5–8 are four out of the many examples of the *wḏ't* or divine eye which we found. No. 9 is an ape, in yellowish-green enamelled paste, typical of *Ḏḥwti* (Thoth). Nos. 10, 11, represent *Sḫt*; the first of these is in green enamelled paste, the second in bronze. No. 12 is the *šwti* or feather-crown of *Imn* (Amen). No. 13 is a circular column on a square base, no doubt also an amulet. No. 14 is a figure in black enamelled paste of Isis with the infant Horus. The child's figure is broken off; but the legs remain distinct. No. 15 is the crocodile, emblematic of *Sbk*. The last two figures may possibly be amulets, but this is uncertain; they have tenons as though they formed part of some object into which they were morticed.

In considering the subject of the amulets found, notice should be taken of the small red coral pendants discovered in the "rubbish heap" at Tell eṣ-Ṣâfi. The property of coral as a prophylactic against the evil eye is well known. The hideous glass pendants (Fig. 19, p. 42), by their grotesqueness, were no doubt meant to attract to themselves the same dreaded influence, as probably was also an obscene glass figure also found at Tell eṣ-Ṣâfi. The latter is of Egyptian origin (an identical object is exhibited in Gizeh Museum, No. 773, room 72, case F).*





FIG. 63. CORAL AMULETS. TELL EṢ-ṢÂFI.

C. *Magical Figures.*—On *Pl.* 85 are shown sixteen small human figures in lead, bound in fetters or ropes of lead, iron or bronze, found in the débris immediately above the floor-level of the Seleucidan "barracks" at Tell Sandaḥannah. As to the meaning of these objects two explanations have been suggested. First that they represent votive offerings after a battle, in the form of bound captives; second, that they represent the intended victims of incantation. M. Clermont-Ganneau,† who supports the latter view, thinks that there may be a possible connexion between them and the magical tablets found at the same site, and notes that, according to this hypothesis, we would have here the first known example in Palestine of a practice which was common in the Middle Ages.

* This is the numbering in the old Museum.

† *See Q.S.*, 1901, p. 58.

The figures range in length from two inches to three inches. The majority are mere strips of lead cut into shape and slightly thickened and rounded at the head. In No. 1 there is no attempt at facial detail, but dots represent the breast and navel; the arms are bound behind the body with a rope of bronze, as shown in positions *b* and *c*. In No. 2 the features are roughly indicated; the hands are bound in front with a fine lead wire, and a similar fetter was round the ankles, but in such a rotten condition that it has crumbled away. The contortion observed in No. 3 is part of the original design, not the result of accident, and represents extreme humiliation; it was probably once elaborately bound like the similar figure, No. 16, but the fetters are now gone. Nos. 4 and 5 are incomplete strips, the fetters missing. In No. 6 there is an attempt at moulding. The figure is of a seated woman, the arms outstretched in supplication, the hands clasped; hair and features are indicated; the ankles are bound with an iron rope or chain. No. 7 is made of a somewhat thicker strip than is found in specimens 1–5; two dots indicate the eyes, and a line shows the mouth; the hands are bound behind with iron fetters. The female figure, No. 8, is the best moulded of the group; the face is worn, but the features were probably well formed, the hair is gathered in a knot, and bound with a braid or fillet; the arms are tied behind with a strip of bronze, part of which hangs down; a portion of the fetter which bound the legs also remains; part of the right leg is worn away. No. 12 is unique, as it is the only figure which is clothed; the features are pinched out, and the arms crossed on the breast and bound with a lead fetter. Nos. 13 and 14 are very thin strips. The arms of No. 15 are tied behind and appear to be fastened to some object, conceivably an instrument of torture; the nature of the binding is shown in the various positions drawn. No. 16 is similar to No. 3, but there has been some attempt at moulding. The figure, which is in a seated attitude, with bent head, is most elaborately bound with a lead rope. As, in addition to the rope, the figure is weighted down by iron spikes (now covered with rust) driven between the arms, the exact method of binding is difficult to make out, but the following appears to be the best explanation:—The rope is coiled first around the left leg, then around the right leg, and, passing between them above the knees, binds the right hand, passes along the right breast, and, winding about the neck, comes down the left breast, binding the right hand and probably the two hands together.

D. *Magical Tablets.*—The discovery at Tell Sandaḥannah of fifty-one fragments of limestone tablets found together in the débris covering a rude mud flooring to the depth of from two to three feet has been noticed in Chap. I, Part I. Of these fragments forty-nine are inscribed in Greek and other languages, and two show no traces of letters. The Rev. Father Germer-Durand, who examined the originals, pointed out that they probably contain incantations, imprecations, exorcisms, etc. Some fragments are clearly parts of rectangular tablets, flat on both sides, and having distinct edges. One of these is inscribed on both faces as well as on the edges. Others are unsymmetrical flakes of limestone, the smooth inscribed surface being either flat or slightly curved, and the uninscribed back rough. In one case, though both sides are inscribed, one is flat and the other convex. The majority of the fragments are small; the maximum dimensions of eight fragments is under 2 inches; the maximum dimension of twenty-six is between 2 and 3 inches; of eight, between 3 and 4 inches; of six between 4 and 5 inches; of two between 6 and 7 inches; and of one only between 9 and 10 inches. The smaller fragments probably represent merely minute portions of the tablets to which they respectively belong, and contain but few letters. Only in two cases, apparently, were two fragments of the same tablet found. Casts of all were taken, and eight were photographed.

Pl. 86.—The largest tablet (No. 35, p. 176), $9\frac{1}{4}$ inches high, and 7 inches broad. The upper part of the face is slightly concave. When found it had a maximum thickness of over 3 inches, the back being rough and irregular, but since discovery this has partly flaked away. The top edge is fairly smooth; the right upper corner is squared; at the left upper corner the stone is broken. That the stone at the time the inscription was carved was not symmetrical is proved by the fact that the letters extend over a portion that has been flaked down. In the face of the stone are six dents. The inscription consists of thirty lines, and the letters are very finely incised. The first letter or letters of the first line are missing, as well as the commencement of the last three lines, owing to the flaking away of the stone previous to discovery. The Greek letters range in height from $\frac{3}{32}$ to $\frac{1}{8}$ of an inch.

Pl. 87 shows a portion of a tablet (No. 34, p. 173) with a slightly concave face and rough irregular back. The bottom right corner is squared, the left corner is broken off. It is also broken off at the top,

the maximum height being 6 inches. The maximum breadth is $5\frac{1}{2}$ inches, which appears to be the original breadth of the tablet. It is $2\frac{1}{4}$ inches thick. Owing to the fractures, the ends of the first five lines and the commencement of the last few lines are gone. The height of the Greek letters ranges from $\frac{3}{16}$ to $\frac{1}{4}$ of an inch. The inscription can be studied better from the cast than from the stone, as the surface is confused with brown vegetable markings.

Pl. 88 shows six of the smaller specimens selected as representative. The left fragment in the lower row contains portions of fifteen lines of writing, consisting of a series of repetitions of one set of characters. The inscribed face is 3 inches high, the back is rough, the average thickness of the stone being $1\frac{1}{4}$ inches. The right fragment in the lower row is $4\frac{1}{2}$ inches long, with an average thickness of 1 inch; the face is slightly concave and the back rough. The inscription consists of three lines of early square Hebrew writing. The other fragments inscribed in Hebrew have much smaller letters, some of which appear to indicate a transition between the Phœnician and square-Hebrew forms.

The tablet (No. 30, p. 170) at the extreme left of the upper row is $2\frac{1}{2}$ inches long and $\frac{3}{8}$ of an inch thick. It has a very smooth flat face, inscribed with two lines of Greek writing in letters $\frac{1}{2}$ inch high. The two lines are identical, but the upper line is the better engraved. The next in order (No. 31 B, p. 171) is $2\frac{3}{8}$ inches in height, the thickness ranging from $\frac{3}{16}$ to $\frac{3}{8}$ of an inch. Both faces and the top edge are inscribed in Greek uncials. It was found in two parts, each part at a different point within the area which contained the hoard. The next (No. 32 A, p. 172) is $3\frac{1}{2}$ inches high, with portions of thirteen lines of writing in Greek. The right edge and parts of the top and bottom edges are preserved; the lower left corner is broken off, thus destroying the beginnings of the last five lines. We are inclined to think that the rest of the left portion of the tablet is intact; but as the lettering here is much defaced, the matter is open to doubt. The stone ranges in thickness from $\frac{3}{16}$ to $\frac{5}{8}$ of an inch, and on the rough back are signs of an inscription in large characters.

The next (No. 33 A, p. 173) is the fragment of a sculptured stele, showing a harpy's claw. The slab is 4 inches high and $1\frac{1}{4}$ inches thick, A fine Greek inscription extends over both faces and the right edge.

The inscriptions are dealt with by Professor Dr. Wünsch in the next chapter.

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CHAPTER IX.

THE LIMESTONE INSCRIPTIONS OF TELL SANDAḤANNAH.

In the course of the excavations which were undertaken in the summer of 1900 at Tell Sandaḥannah, in Palestine, for the "Palestine Exploration Fund," there were found, among other things, in the stratum of rubbish at the S.W. corner of the town wall, a considerable number of fragments of limestone, which were covered with inscriptions. The particulars of this "find" have been briefly related in the *Quarterly Statement* for 1900, p. 331, by Mr. F. J. Bliss, who had the good fortune to make the discovery. This *savant* not only most carefully superintended the actual disinterment of the fragments, and had them cleansed with great caution, so that the inscriptions (for the most part very lightly engraved) escaped any damage, but he also took casts of all the stones, and photographs of those which were in the best state of preservation. Thus means have been provided by which the inscriptions may be deciphered without actually seeing the originals. The Committee of the "Palestine Exploration Fund" were so good as to send the casts and the photographs to me at Breslau, and I am endeavouring to show my gratitude for this kindness by publishing the results of my examination as follows. That I have only been able in a few cases to make out a continuous text, so as to render the meaning of the inscription fully intelligible, is at least partly due to the ill-preserved condition of the originals, and will, therefore, be readily excused. The photographs and casts are both beautifully clear, and at first sight, indeed, as Mr. Bliss remarks, the photographs seem to be better than the casts, inasmuch as a great many letters show more distinctly in the former than in the latter. But when they are more leisurely examined, we perceive that many injuries which in the casts are plainly recognisable as accidental scratchings, look like letters in the photographs, and thus lead the decipherer to false results. For this reason they can only be used as a secondary resource in the re-construction of the text, which must in every case be first investigated by means of the casts.

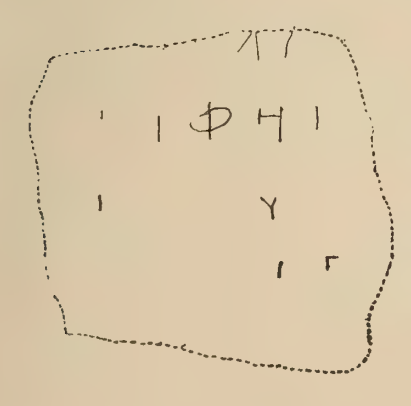
The number of the casts sent to me was fifty-one. I have not been able to deal with all these items. In the first place, I was obliged to lay aside those tablets which were inscribed with a non-Greek text through

want of knowledge of the languages in which they were written. On four of the tablets there are Hebrew letters. Dr. Brockelmann, the Orientalist, Professor in the above-mentioned University, to whom I showed these fragments, believed he could even distinguish some Hebrew words, but no continuous text could be made out. Two tablets are inscribed with a language unknown to me, which is probably Coptic ; they are texts which would doubtless be easily deciphered by a person familiar with that language. Furthermore, I decided against the publication of two tablets the casts of which showed no trace of any letters whatever, and on which Mr. Bliss had already failed to detect any writing. As regards the remaining forty-three casts, two are the back and front sides of the same stone (No. 32), and two belong to the same inscription (No. 27). There remain forty-one. I have so arranged these as to begin with the smaller fragments, and to go on to the better preserved inscriptions. At the end I have placed six with regard to which a special use is also distinctly recognisable. I have given a drawing, nearly the natural size, of each item, wishing to represent accurately what I believe I am able to detect in the casts.

NOS. 1–8.—UNINTELLIGIBLE REMAINS OF GREEK INSCRIPTIONS.

No. 1.—Fragment, broken on three sides, of the shape of an irregular quadrilateral, whose sides measure about $0^{m}\cdot04$. One can make out the remains of two, probably Greek, letters.



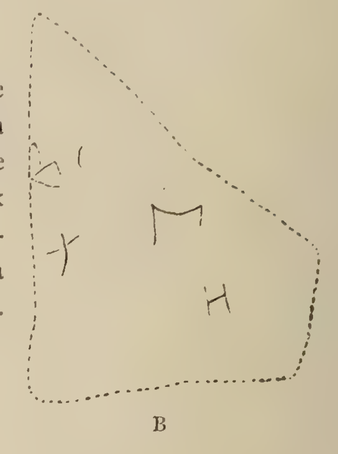


No. 2.—A piece of stone broken on all four sides, forming a square whose sides measure about $0^{m}\cdot04$. Perhaps the stone was already broken before it was written on, at least the remains of writing can be made out, apparently, on the upper edge, and on the left hand side.



A

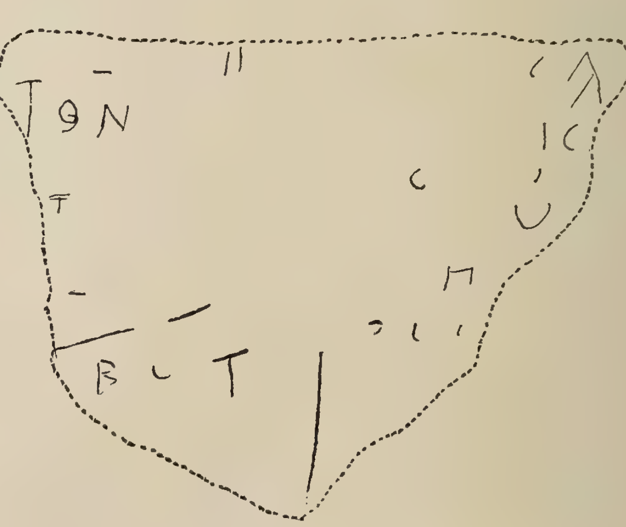
No. 3.—Fragment, extreme height $0^{m}{\cdot}06$, extreme breadth $0^{m}{\cdot}04$; on the front (A) and the back (B) appear remains of Greek letters, which give one the impression of having been meant for a purposely illegible magical formula.



B

No. 4.—Fragment, with only one side undamaged, greatest height $0^{m}{\cdot}045$, greatest breadth $0^{m}{\cdot}065$. Remains of a Greek inscription of five lines.

PЄI . . . . .
N . . . .
Line 5 **MЄΠ** (?) . .

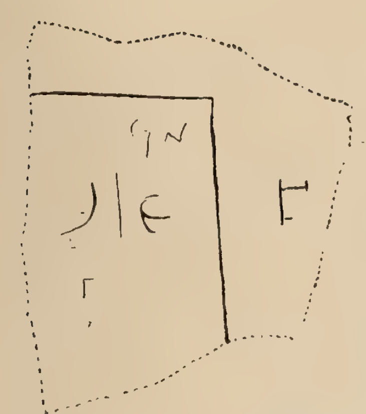


No. 5.—Fragment, greatest height $0^{m}{\cdot}07$, greatest breadth $0^{m}{\cdot}09$. Scattered Greek letters.

Line 2 **TON** . . .



No. 6.—Fragment of a stone, $0^{m}{\cdot}04$ in height and width. The stone has been twice written upon; the older writing has been erased. Of the later, one can only make out two **Φ**'s.



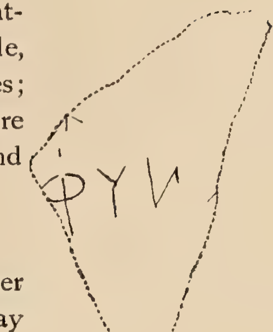
No. 7.—Fragment, 0^{m}·06 high, 0^{m}·05 wide. The inscription is framed in the right hand corner of a border.

Line 1 . . . **ЄΙΝ**
Line 2 . . . **ΟΙЄ**

No. 8.—A right-angled triangle, broken on all sides; the sides measure 0^{m}·03, 0^{m}·04 and 0^{m}·05.

. . . **ΦΥ** . . .

The third letter is doubtful, it may be a cursive **K**.

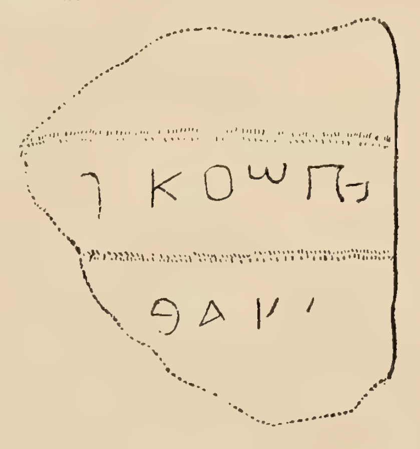


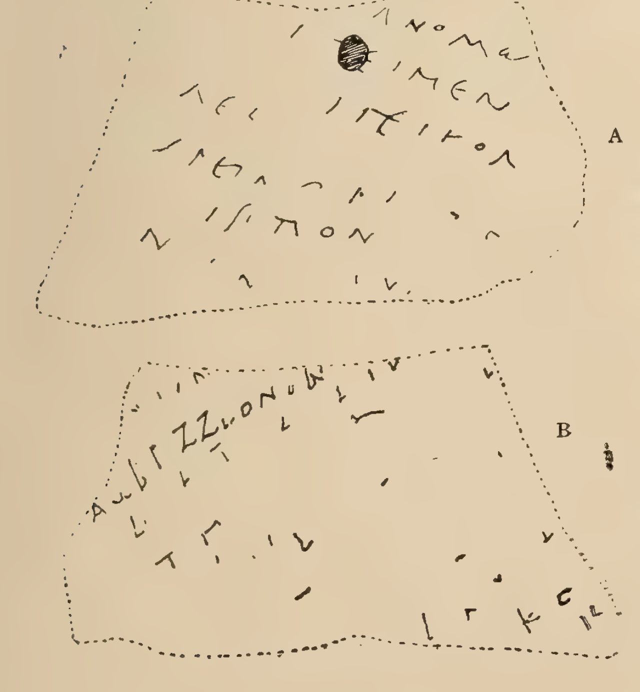
NOS. 9–19.—SMALLER GREEK INSCRIPTIONS, CONTAINING SEPARATE GREEK SYLLABLES AND WORDS.

No. 9.—Fragment, right side intact. Greatest height 0^{m}·05, greatest width the same. It is a palimpsest.

. . . **ΚΟω** . . .
. . . **ΘΑΚ** . . .

Line 1 ἐπη]κόῳ? Line 2 Μαλ]θάκ[η?

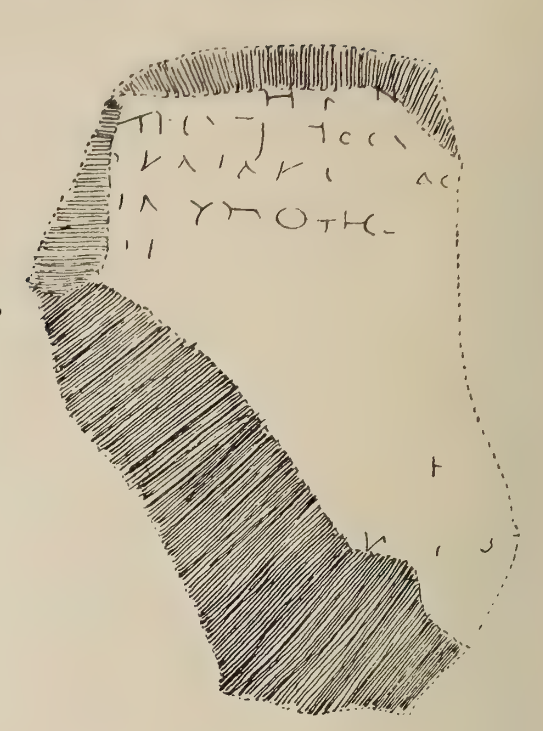




No. 10.—Fragment, greatest height 0^{m}·04, greatest width 0^{m}·08. Inscribed on both sides, A and B. One can only with certainty decipher

A, line 1 **ΑΝΟΜω**
ἀνόμῳ
„ 2 . . **ЄΙΜЄΝ**
„ 5 . . . **ΙΠΟΝ** . . .

Line 1: see *Inscr. Gr. Sic. It.* 1047, line 3: τοῦ ἀνόμου Τυφῶνος.



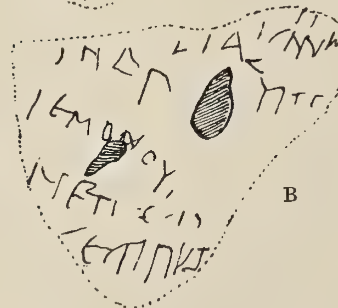
No. 11.—Fragment, greatest height $0^{m}{\cdot}1$, greatest width $0^{m}{\cdot}07$. One can make out in line 4:

ΥΠΟΤΗ

. . . ὑπὸ τῆ[ς . . .



A

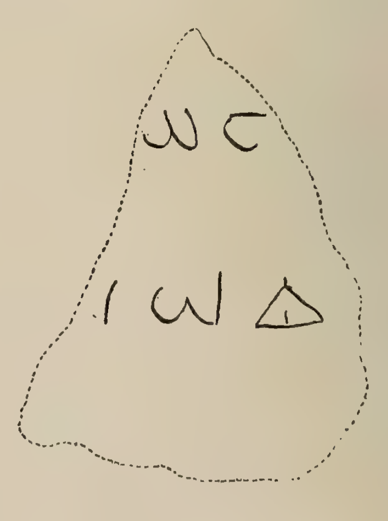


B

No. 12.—Fragment, greatest height $0^{m}{\cdot}05$, greatest breadth $0^{m}{\cdot}04$. Inscribed on both sides, A and B. The front side is illegible; on the back one can make out:

Line 4 . . **ЄΜΟΝΟΥ** . . . . . ἐμὸν οὐ . . .

. . . **ЄΤΙ** . . . . . . ἔτι . . .

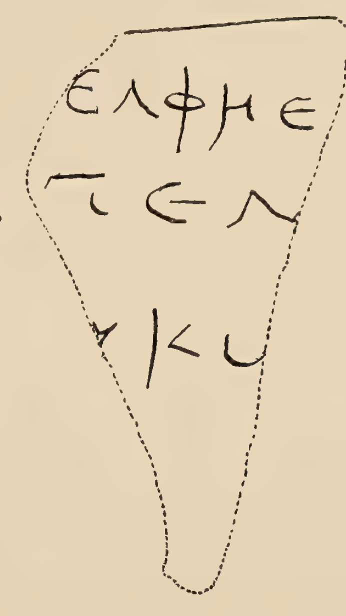


No. 13.—Fragment, greatest height $0^{m}{\cdot}06$, greatest width $0^{m}{\cdot}05$.

Line 1 . . . **ωC** . . . Line 2 . . . **ωΦ** . . .



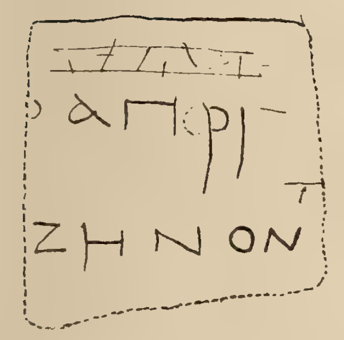
No. 14.—Fragment, equilateral triangle, whose sides measure 0m·07. In line 1 **ΟΥ ΙΠ** is part of a word in the genitive case, and perhaps the beginning of a proper name **ΙΠΠΟ**...



No. 15.—Triangular fragment, greatest height 0m·08, greatest width 0m·04. Upper edge intact.

. . . **ЄΛΦΗЄ** . . .	. . ἀδ]ελφὴ . . .
. . . . **ΠЄΝ**	. . . πεν[θερὰ ?
. . . . **ΥΚѠ**	. . Γλ]ύκω[νος ?

(Nos. 13–15.—The letters appear to be of the same form.)



No. 16.—Quadrilateral fragment, sides measure 0m·04. Upper edge uninjured.

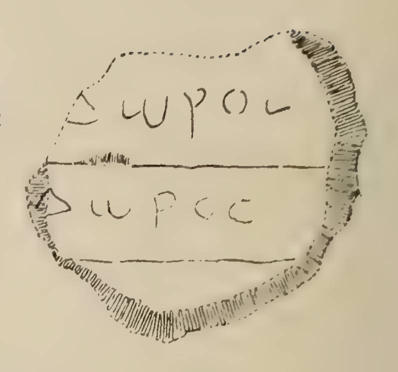
Lines 2 and 3:

. . **ΑΠϹΡΙΤ** . .	. . ἃ περὶ τ[οῦ . . ?
. . **ΖΗΝΟΝ** . .	. . Ζήν(ω)ν[α . . .



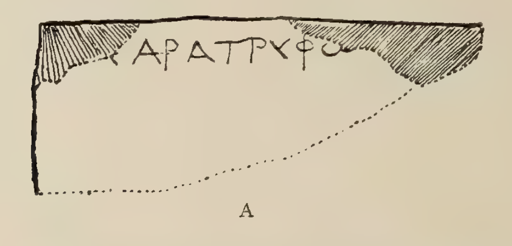
No. 17.—Fragment, greatest height 0m·02, greatest width 0m·06.

. . **ϹΑΜϹΝΙΔΟΥ**	Τι]σαμενίδου
. . . **ѠЄΥЄϹΠЄΡ** . .	. . Εὐεσπερ[ίδου ?

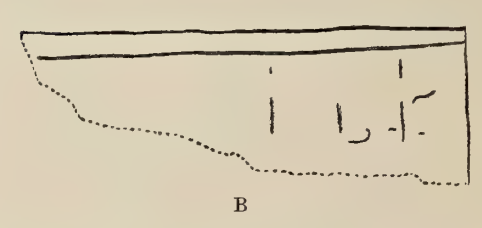


No. 18.—Fragment, greatest height $0^{m}\cdot04$, greatest breadth $0^{m}\cdot045$.

. . . **ΔωPOC**	Θεό ?]δωρος
. . . **ΔωPOC**	Θεό ?]δωρος



A



B

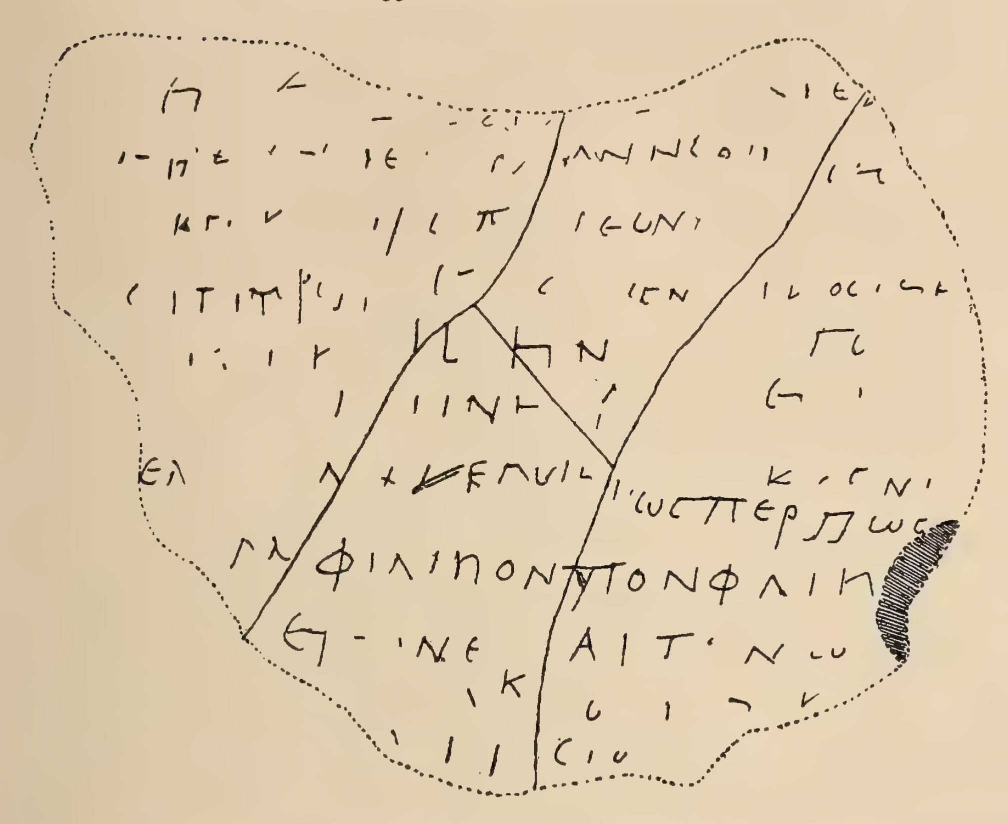
No. 19.—Top and left hand side uninjured. Greatest height $0^{m}\cdot03$, greatest width $0^{m}\cdot07$. On the back (B), which shows a peculiar border, an older inscription has been effaced. On the front (A) there has never been more than the one line :

ˎAPATPYΦω . . .

Χ]αρὰ Τρύφω[νος

For Χαρὰ as a proper name, see *Corp. Inscr. Gr.* 4215.

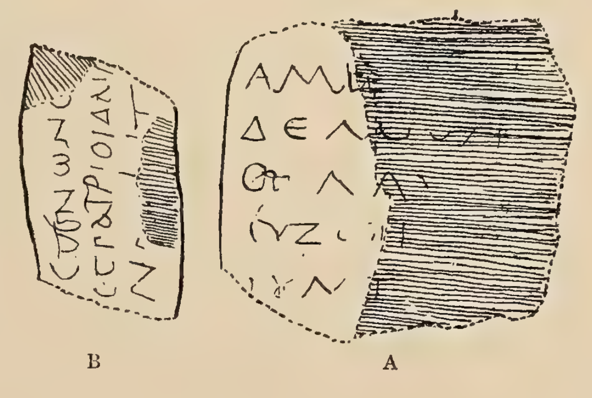
NOS. 20–35.—LONGER GREEK TEXTS.



No. 20.—Fragment, greatest height 0m·11, greatest width 0m·16. The text is very uncertain.

Line 2 . . . . **ΛΩΝΙΟΙ**	. . . 'Απολ]λώνιον ? . . .
„ 7 . . . **ΩϹΠΕΡΠΩϹ** . . .	. . . ὥσπερ . . .
„ 8 . . **ΦΙΛΙΝΟΝΥΙΟΝ Φ . ΛΙΝ** . .	. . Φιλῖνον υἱὸν [corr. to τὸν] Φ[ι]λίν[ου

No. 21.—Stone, 0m·04 high, 0m·05 wide, 0m·02 thick. The edges, all but that on the left hand side, are broken, but nevertheless the stone seems to have been originally inscribed when in this condition, because the top and bottom lines on the front side (A) stand at a considerable distance from the edges. The left hand side (B) also is inscribed, and here a corresponding piece of the top was broken later on.



B A

A	**ΑΜΩ . . . . .**	Ἄμω[μος ὁ ἀ	B **CΘΕΝΩΝν . . . . .**	Σθένωνα [δαίμον-
	ΔΕΛΟΟ .	δελφὸ[ς	**ЄCΠΑΤΡΙΟΙΔΑΙΝ .**	ες πάτριοι δαίμ[ο-
	ΘΕΑΝ` . . .	Θεάνδ[ρου ὁ	**ΝΕ . . . ΗΤ . . . .**	νε[ς μ]ήτ[ριοι
	ЄΥΖΩΙ . .	Εὐζώη[ς	. . . .	[κατέχοιεν]
5	**ΙΥΜΙ . . .**	νυμφ[ίος		

A 1. Ἄμωμος appears as a proper name in Fick-Bechtel's *Die Griechischen Personennamen*, page 213, as does also Θεάνδρος on page 59 of the same work. Εὐζώη is hitherto unknown, but the reading appears certain. B. I have supplied the missing words from Lucian's *De Morte Per.*, ch. 36: Δαίμονες μητρῷοι καὶ πατρῷοι, δέξασθέ με. Line 4 perhaps we should conjecture παραλάβοιεν. From the form of the letters used, B appears to be of later date than A, but perhaps the cutter purposely copied the older form of the capital letters in A, and that inscription is by the same hand as the more cursive B.

No. 22. — Fragment, greatest height $0^{m}\cdot04$, greatest width $0^{m}\cdot07$, written on both sides, A and B. One can only make out

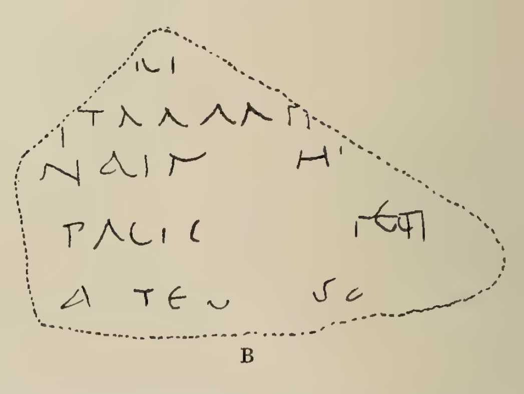
A, line 2–5:

. . **ΓΗΜΑΙΑΛ . . .**	. . γῆμαι ἄλ[λην . .
. . **ΤΩΠΑ . ΟΙΩΤΩ . . .**	. τῷ Πα.οίῳ τῷ . .
. . . **CΗCΤΙΜΩΙΝ . .**	. . . ἧς Τίμω⟨ι⟩ν . .
. . **ΦΡΩΝ**	ἄ]φρων ?

A

B, line 2–4:

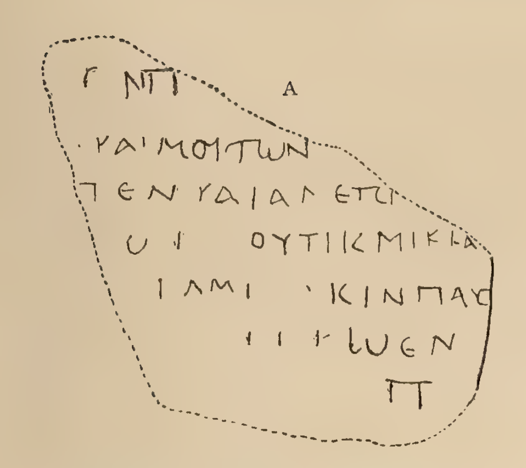
. . **ΤΑΛΛΑΠ . . .**	. . τἆλλα π[άντα
. . **ΝΑΙ . . .**	εἶ]ναι . . .
. . **ΡΑCΙC . .**	

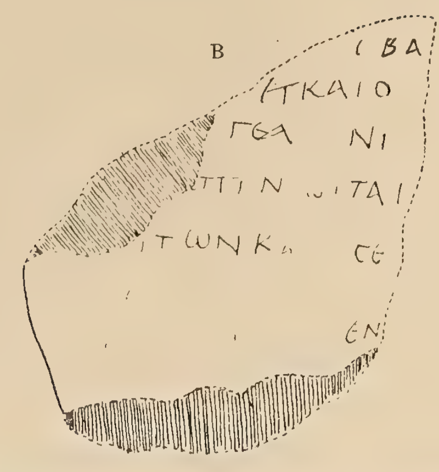


B

A 2. See *Def. Tab. Att.*, No. 78: μήποτ' αὐτὸν γῆμαι ἄλλην γυναῖκα. 3 Πα[νθ]ίῳ? 5 see *Def. Tab. Att.*, No. 65, 8: ἄφρονες γένοιντο.

B 4. ὅ]ρασις? or π]ρᾶσις?





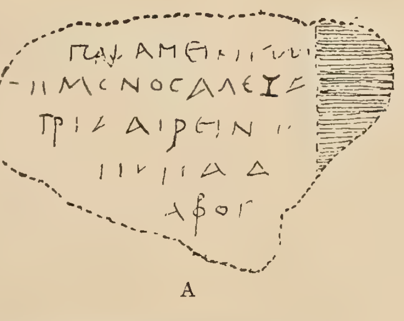
No. 23.—Fragment, uninjured on one side, inscribed on both sides (A and B). Greatest height 0m·05, greatest breadth 0m·07.

A. . . . Ο . ΝΠ . . . .
. . ΚΑΙΜΟΙΤΩΝ . . . .
. ΠΕΝΚΑΙΑΝΕΠΙ . . . . . .
. . ΟΙ . . ΟΥΤΗϹΜΙΚΚΑ . .
5 . . ΙΑΜΙ . . ΙϹΙΝΠΑΥϹ . .
. . . . ΩΕΝ . . .
. . . . Π . . . .

B. . . . . ϹΒΑ . . . .
. . . . . ΕΓΚΑΙΟ . . .
. . . . ΓΕΑ . . ΝΙ . . .
. . . . ΠΙΝ . . . ΤΑΙ .
5 . . . ΙΤΩΝΚ . . ϹΕ . .
. . ΕΝ .

One can make out in A, 2 . . καί μοι τῶν . . . 3 εἶ]πεν καὶ ἀνεπι . . . 4 . . ου τῆς Μικκά[λου; B, 2 ἐν]έγκαι.

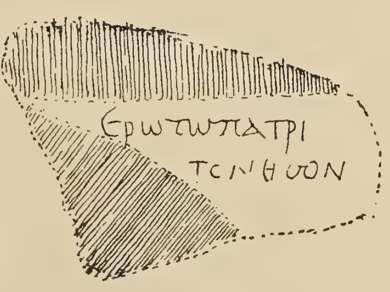
No. 24.—Fragment, greatest height 0m·04, greatest breadth 0m·05. Inscribed on both sides (A and B).



A

A. . . . . . ΠΑΡΑΜΕΙΝΙ . . . .
. . . ΓΗΜΟΝΟϹΑΛΕΞΑ . . .
. . . . ΤΡΙΑΑΙΡΕΙΝ . . . .
. . . .
5 . . . . . ΑΦΟΙ . . . . .

B. ΕΡΩΤΩΠΑΤΡΙ — ἐρῶ τῷ πατρὶ
. . . ΤΟΝΘΕΟΝ — . . . τὸν θεόν

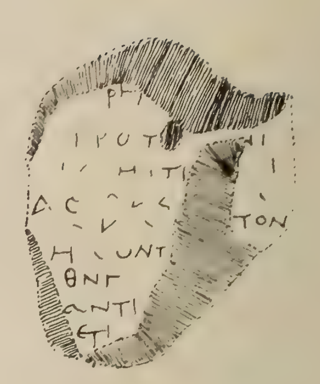


In A one can make out: 1 παρ' Ἀμεινί[ᾳ . ?; 2 Ἡ]γήμονος Ἀλεξά[νδρου; 3 . . . τρια αἱρεῖν; 5 ἄφρο[νες (*see* No. 22A).

B is perhaps complete: ἐρῶ τῷ πατρὶ τῶν θεῶν.

No. 25.—Fragment, $0^{m}\cdot05$ high, $0^{m}\cdot04$ wide.

. . . . PH	
. . IPOT . . . . NI . . .	
. . . . HITI . . . . I . . .	
. . ⲀC	
. . . . TON .	. . . . . . τὸν . .
. . . H . ONT	. . ἥ[κ]οντ[ες . .
. . . ΘNH	. . . θνη[τοὶ . . .
. . . ⲀNTI	. . . ἀντι . . .
. . . ЄTI	. . . ἔτι . .





No. 26.—Fragment of a tablet, $0^{m}\cdot04$ thick, inscribed on both sides. A's greatest height is $0^{m}\cdot06$, its greatest width $0^{m}\cdot035$. B's greatest height is $0^{m}\cdot05$, its greatest width $0^{m}\cdot025$. On this side the right-hand edge is intact.

A.	. . . ПⲀKIOI . . .	. . . Πάκιο[ν . . .
	. . OIⲀKPICПⲀ . . .	. . . οια Κρίσπα . .
	. . ⲀPΔЄⲀПⲀICЄ . .	. . . Ἄρδεα (?) παῖς . .
	. . ПЄMПIⲀIONΔЄI . .	. . . πεμπ[τ]αῖον δεῖ [τελευτῆσαι (?)
5	. . ЄTⲰⲀI . . OMⲰ . .	
	. . ПOI	
	. . ΓVIⲰN . . .	

B. 2	. . . . POYKOPI	Ταρτά]ρου κόρ[η (?)
	. . . ЄⲰCΦ ON	. . ἕως φρον-
	. . . . . . TON .	ῶσι] . . . τον .
5	. . . . . ΘⲀI	. . . . θαι
	. . . . . IⲀC	. . . . ιας

A. Πάκιος, Κρίσπα and Ἄρδεα (?) are Roman proper names. In line 4 I have supplied words from the Sethianic imprecation-tablet (Leipzig, 1898, page 18) no. 16, 64: *μαραίνετε . . . τὴν ψυχὴν . . . Καρδήλου . . . εἴσω ἡμερῶν πέντε.*

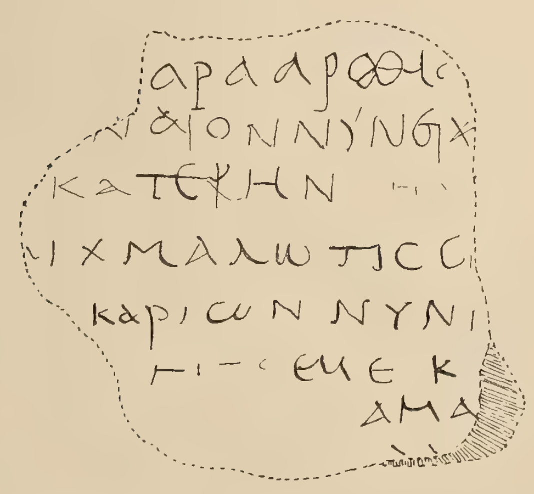
B 2. Restored after Pap. Par. 1403: *κλειδοῦχε Περσέφασσα, Ταρτάρου κόρη* (*Denkschr. d. Wiener Akademie*, XXXVI, 80).

No. 27.—Two connected fragments, greatest height 0m·06, greatest breadth 0m·05.

. . . . ΤΙΑ . . . . . Ο . . . .
. . . ΔΙC . . . .
. . . ΜΕΑΝ . . ΟΙΛΕΓ . .
. . . ΑCΚΑΤΑΒΑΛΩΝ . .
5 . . ΝΟΙΟCΕΡΓΑΤΗC . .
. . . ΕΠΙCΤΑΤΑΙ . . . . .
. . . . ΡΑCΚΑΙΘΥΜ . . . .
. . . . ΑΙ

In line 5 Α has been corrected into Γ.

Line 2 Ἀφρο]δίσ[ιος καὶ ? .
. . μεαν[ὸς] οἱ λέγον[τες]
. . . ας καταβαλὼν . . .
5 . . νοιος ἐργάτης . . or . . νοι ὃς ἔργα τῆς . .
. . . ἐπίσταται . .
. . χεῖ]ρας καὶ θυμ[όν . . .



No. 28.—Fragment, measuring 0m·07 each way.

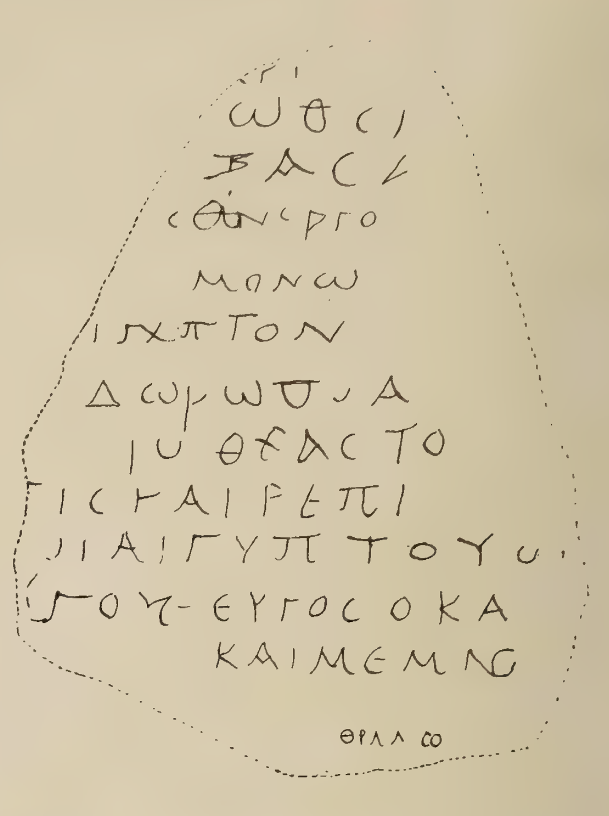
. . . . . ΑΡΑΑΡΕCΘΗ . . .
. . . ΝΑΙΟΝΝΥΝΕΤΙΧ . .
. . ΚΑΤΕ . ΗΝ . . . . .
. . ΙΧΜΑΛΩΤΙCC . . . . .
5 . . . ΚΑΡΙΩΝ ΝΥΝ . . . . .
. . . . ΕΜΕ Κ . . . .
ΑΜΑ . .

One can make out in line 1 ἀρεσθῇ; 2 ὃν νῦν ἔτι; 4 [α]ἰχμαλωτίς; 5 Καρίων νῦν; 6 ἐμὲ; 7 ἅμα.

No. 29. — Fragment, greatest height 0m·11, greatest breadth 0m·08. It is a palimpsest, line 13 is a relic of the original inscription.

. . . .
. . Ω Θ CΙ . .
. . Β Α C Α . .
. . CΘΟΥЄΡΓΟ . .
5 . . . ΜΟΝΩ . .
. . ΙΓΥΠΤΟΝ . . .
. . . ΔΩΡΩΘ ЄΑ . .
. . . . ΡΟΘЄΑCΤΟ . .
. . ΙCΚΑΙΡЄΠΙ . . .
10 . . . ΑΙΓΥΠΤΟΥΟΙ .
. ΘΟΥЄΡΓΟCΟΚΑ . .
. . ΚΑΙΜЄΜΝΩ . .

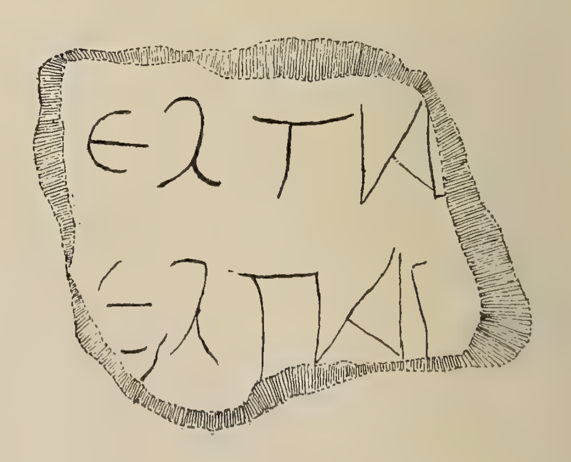
. . . ΘΡΛΛΩ



We can here restore line 2 Δωρ]ωθ[έα; 3 βασα[νίσαι; 4 Θούεργο[ς; 5 μόνῳ; 6 Α]ἴγυπτον; 7 Δωρωθέα; 8 Δω]ροθέας τὸ; 10 Αἰγύπτου οἰ[κέτου; 11 Θούεργος ὁ κα[ὶ; 12 καὶ Μέμνω[ν. I read βασανίσαι, following the Knidos tablet, *Def. Tab. Att.*, p. x, no. 81A, 27: βασάνους βασανιζομένα. Θούεργος is the same name as Θεόεργος, *Fick-Bechtel*, p. 128.

No. 30 (see Pl. 88).—Fragment, greatest height 0m·055, greatest breadth 0m·065.

ЄΛΠΑ . . . .
ЄΛΠΑΓ . . . .



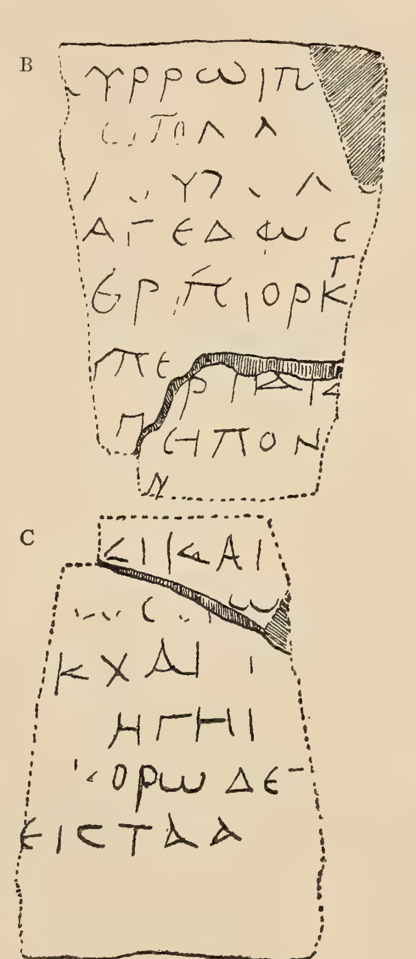
There seems to be nothing wanting on the left-hand side. This is the name Ἐλπαγ[όρας written twice over. See *Fick-Bechtel*, p. 108.

No. 31.—Fragment, undamaged on one side. Greatest height 0m·07, greatest width 0m·06, greatest thickness 0m·015. The edge (A), the front (B, *see* Pl. 88) and the back (C) are all inscribed by the same hand.

A. . . ΚΙΖѠΥΜΑϹЄ . . .
. . . . ѠΝ . . . ΜЄΙ . .

B. . . ΥΡΡѠΙΠ . . . .
. . ѠΤΟΝΛ . . . .
. . . . ΥΜΛϹ . . . .
. . ΑΓЄΔѠϹ . . . .
5 . . ЄΡΠΙΟΡΚ . . .
. . ΥΠЄΡΠΑΙΔ . .
. . ΠЄΙΠΟΝ . . .
. . Ν

C. . . . ϹΙΚΑΙ . .
. . . . Ѡ . .
. . ΙϹΧΑΙ . . .
. . . ΗΓΗΙ . . .
5 . . . ΚΟΡѠΔЄ . .
. . . ЄΙϹΤΑΑ . . .



I restore thus, A 1 ἐξορ]κίζω ὑμᾶς (following No. 32, A 8). B. 1 Π]ύρρῳ Ἵπ[πωνος; 3 ἐξορκίζω] ὑμᾶς (following A 1); 4 ἀ[π]έδωσ[αν; 5 ὑπ]ὲρ (ἐ)πιορκ[ίας; 6 ὑπὲρ παιδ[ός; 7 ἀ]πεῖπον. C. 5 νεο]κόρῳ δὲ; 6 εἰς τὰ.

For the form ἀπέδωσαν (= ἀπέδωκαν) see *Meisterhans-Schwyzer, Gramm. d. Att. Inschriften*, page 188. The first letter of ἐπιορκίας disappears in a ligature, and the **Κ** has been corrected into a **Γ**, evidently under the influence of Egyptian Graecism.

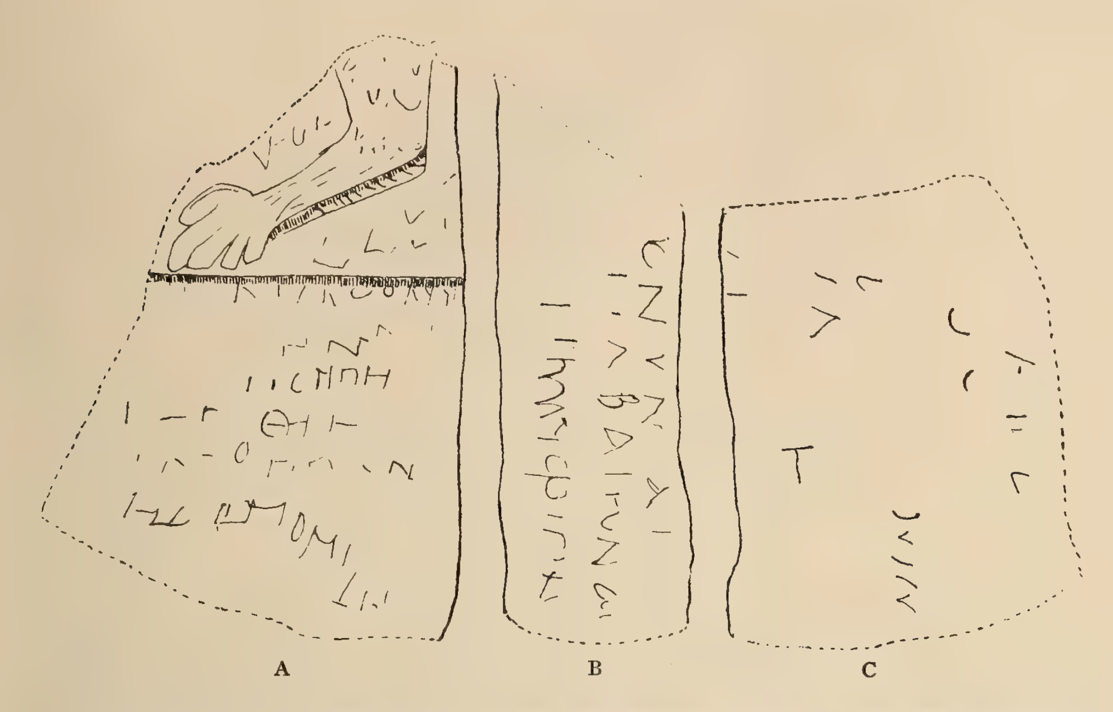
No. 32 (*see* Pl. 88).—Front and back of the same fragment of stone, measuring $0^{m}\cdot08$ in greatest height, $0^{m}\cdot06$ in greatest breadth.

A

B

A.	. . . . ΚΑΙΡΟΥCΤΚΙΩ	. . . . *καὶ* Ῥ*ουστ*[*ι*]*κίῳ* . . . . . .
	. . . . ЄΙCΙΛЄΙΩΘЄΟΥΘΥΜ	. . . . *εἰς ἵλε*⟨*ι*⟩*ω θεοῦ θυμ*[*ὸν* . .
	. . . . CΤΑ . . . . . ΟΝΟΤΡΟΙ	. . . . *μ*]*ονότροπ*[*ος* . .
	. . . . ΩЄΠЄΙΤ . ΚΑΤΩ	. . . . . . *ἐπεὶ τ*[*ὰ*] *κάτω*. . . . . .
5	. . . . ΟΥΚΚΩΛΥЄΙΝ	. . . . *οὐκ κωλύειν* . . . .
	. . . . ΩΙΔЄΠΑΡЄCΟΜЄΝΟC . . .	. . . . *ὧ*(*ι*)*δε παρεσόμενος* . . . .
	. . . . ΠΑCΑΙ ΑΡΤΙΠΑΙΔΟC . . .	. . . . *πᾶσα*[*ν*] *ἀρτίπαιδος* . . . .
	. . . . CΤΙΝΔΙΟЄΞΟΡΚΙΖΩCЄ . .	. . . *ἐ*]*στίν· διὸ ἐξορκίζω σε* . . .
	. . . . CΩΤΗΡΙΑΝΚΑΙΠΑΡΑΘЄ . .	. . . . *σωτηρίαν καὶ παρὰ θε*[*ῶν* ?
10	. . . . ΘЄΝΚΑΤΑΩΤΑΚ . ΙЄΝ . . .	. *τὸ ῥη*]*θὲν κατὰ ὦτα κ*[*α*]*ὶ ἐν*. . .
	. . . . ΙΟCΤΑΤΗCΤ . CΜΥΟC . .	. . *πρ*]*οστάτης τ*[*ῆ*]*ς* Μ*υὸς* . . .
	. . . . . . ΑΡΩΓ . . . ΘЄΝΙ . Ω . . .	. . . .
	. . . . ΛΑΘЄΙΝ	. . . *λαθεῖν*
B.	. . . . ΘΙ . . . . ΙΜΗΔΙ . .	. . . .
	. . . . ΤЄ . . ΟΚ	. . . .
	. . . . ΚΑΡΠΟΙΚ	. . Κ*άρπον* . .
	. . . . ΚΑΙΜ	. . . *καὶ* . . . .

A 11 should perhaps be restored: *προστάτης τῆς* Μ*υὸς*[*οἰκίας*. Μ*ῦς* repeatedly occurs as a masculine proper name.



A B C

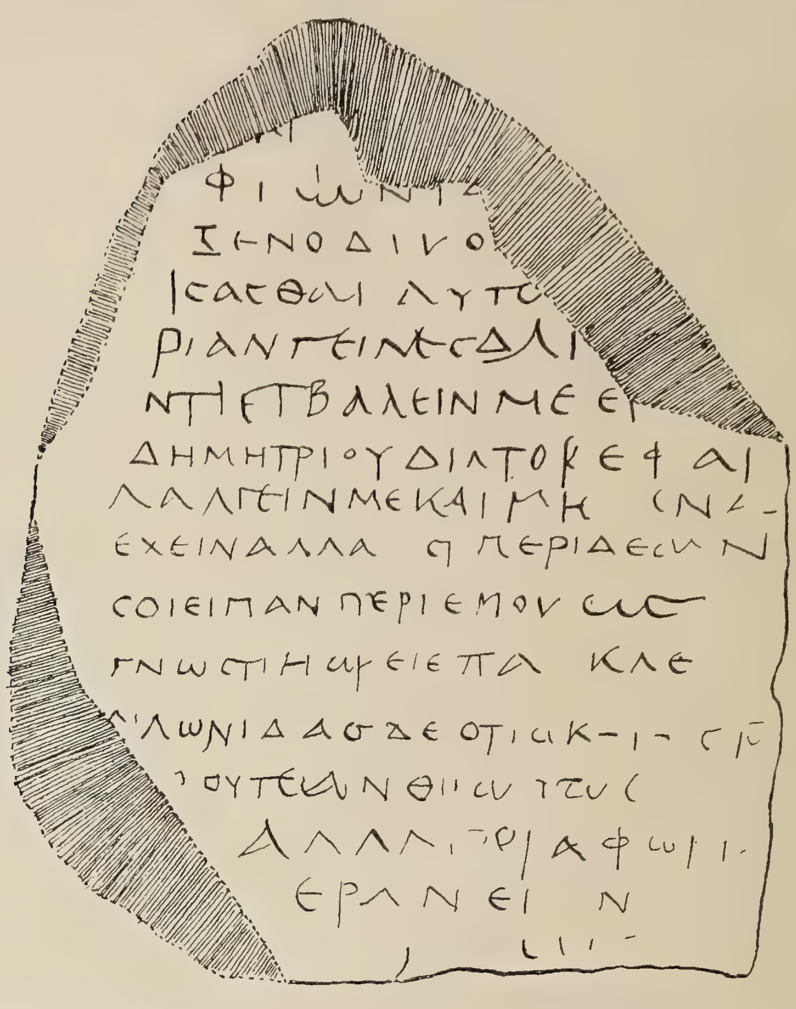
No. 33 (*see* Pl. 88).—Fragment, greatest height $0^{m} \cdot 1$, greatest width $0^{m} \cdot 075$, greatest thickness $0^{m} \cdot 03$. The right-hand edge is uninjured; the upper half of the front side shows a sculptured Harpy's claw. As these were often placed over graves (Roscher's *Mythologisches Lexicon*, I, 1846), we must also in this case think of a gravestone. The front (A), the back (C) and the edge B are all inscribed; whether by the same hand one cannot say for certain. A is palimpsest, but the original mortuary inscription is almost effaced.

On A and C I can trace only some isolated letters but no complete word; on B I read:

. . . ONYNΔI . . .	. . . . . νῦν . . .
. . . ΛΒΔΙΗΝω . .	. . . .
. . . NYMΦION . .	. . . νυμφίον . .

No. 34 (*see* Pl. 87).—This stone was originally a rectangular tablet $0^{m} \cdot 16$ high, and $0^{m} \cdot 14$ wide. At the top on the left-hand side there is a small, and at the bottom and on the right-hand there is a large piece of the original border remaining. At the beginning two lines are missing: the number of letters in each line varies.

. . . .		. . . .
. . . .		. . . .
ΦΙΛωΝΙΔ		Φιλωνίδ[ην καταδῶ καὶ
ΞЄΝΟΔΙΚΟ		Ξενόδικο[ν, ἀξιῶν τ-
ΙϹΔϹΘΔΙΔΥΤΟ	5	ίσασθαι αὐτο[ὺς καὶ τιμω-



ΡΙΑΝΓΕΙΝΕCΘΑΙ . . . . , . .		*ρίαν γείνεσθαι[τῷ ποιήσα-*
ΝΤΙΕΓΒΑΛΕΙΝΜΕΕ .		*ντι ἐγβαλεῖν με ἐ[κ*
ΔΗΜΗΤΡΙΟΥΔΙΑΤΟΚΕΦΑΙ		*Δημητρίου διὰ τὸ κεφαι-*
ΛΑΛΓΕΙΝΜΕΚΑΙΠΗ . CΝΑ .		*λαλγεῖν με καὶ πη[μο]νὰ[ς*
ΕΧΕΙΝΑΛΛΑ . CΙΠΕΡΙΔΕC . . Ν	10	*ἔχειν ἄλλα[ς]· εἰ περίδεσ[μό]ν*
COΙΕΙΠΑΝΠΕΡΙΕΜΟΥΩC .		*σοι εἶπαν περὶ ἐμοῦ, ὡς [ἀ-*
ΓΝΩCΤΙΗΑΡΕΙΕΠΑ . ΚΛΕ .		*γνωστίῃ ἄρειε Πα[γ]κλέ[α .*
. ΙΛΩΝΙΔΑCΔΕΟΤΙΩ̣Κ . !̣		*Φ]ιλωνίδας δὲ ὅτι . . . . . .*
. . . . ΟΥΤΕΩΝΘ . Ω . . ΩC̣ . . .		*. . . . οὔτε ὦν . . . .*
. . . . ΑΛΛΛΟΙΑΦΩΙ	15	*. . . . ἄλαλοι ἄφων[οι*
. . . . . ΕΡΛΝΕΙ . Ν		*καὶ τοῦ] ἐρᾶν εἶ[ε]ν*
. . . .		*[ἄμοιροι]*

Lines 3, 4, 17 are only uncertain restorations. Line 11 is addressed to a god, whose name has been lost in lines 1 and 2.

No. 35 (*see* Pl. 86).—An almost complete tablet, 0m·24 high, 0m·19 wide. Some of the breakages were in existence when the inscription was cut on the stone.

. . . MOKAIZЄBATOCAΠЄCTAΛKANЄKTωNTIMω . . . .
ЄPωCΘAIKAIZHNANЄTЄIωCOIMAIMЄΛΛOΘΛI . . . .
ЄIΔЄNAIOTITPIЄTHCЄIMIAΠHΓMЄNOCO . . .
KAIΘЄωNTAЄMAЄXωNΓINЄTAI . ωNΔЄN . . .
5 OTIHЄCCЄXPЄIAOYΔAMωCCOIΠPOCAΠЄC . A .
TAIAΛЄNTPЄΠOMЄNOCЄΠITAMAΔЄCI . N
AΠOBIACЄXωTOYTONЄΓωHNIKAΓAPKAΘH . .
ΦANЄIωC MЄTA KYNωN BACANICAIMЄ .
MOYTOICTOIXωPYXHCACITHNTYMBIAN
10 Θ . CINTω NЄMωN ATЄAΠOΛOMЄN . .
KAI . CCΠIAΓAΘωΠOIOYCIΔIATONΔЄCMON
KAIЄ . YMHΘHNЄIMHΠOYЄKACTOTЄTI .
ΠOINAC ЄKΛYCAC MЄXPI TOY AΠOCTЄPH
ΘHNAI TON ΠOΔAΓPIKON BIAIOCAΠωΛOIMH . . N
15 ωCTЄ ANTЄCωΘωANTЄ AΦCOω ωPAMЄN . Λ
. ЄI . ICHMЄPONΔIACЄTHNCωTHPIAN
ЄΠЄIΛNC . ωCMACTICΘЄICKINΔYNЄYω . . I
MHKЄTI ΔYNAMЄNOC ΔЄCMONЄNЄNK . . .
AΞIωCЄTONΠPOCKAIPωCAITHNKA . . . . . .
20 . . NΔYNAMЄNON ΔIACЄTOYΦωTICT . . . . .
. . Λ . . ANΘPω . . N PIΠTACAIΠЄPIΔЄωCOTI
N . . M . . K . . . . Π . . . OTYΠIANKAIЄCTO ΨYX . . .
. . . . N . . ω . . . ITON . . IΛΛ . CTЄΛ . . . ω .
. . . . ΛΘ . . . A . . ΠAN ЄΓω . . . . . .
25 . . . . ω . . . . OYΛ . . . . CIAN . . IAI .
. . AMAAΞIω . . . . AN . ЄΠI . . . . Є . . .
. ЄΠ . . N . . . . OMЄ . . . . . ON . .
. . . . AN . . . .
. . . , . ЄI . . . IΛ . CΘ . . . I . . . . AI . . . .
30 . . . . IΛ . . . .

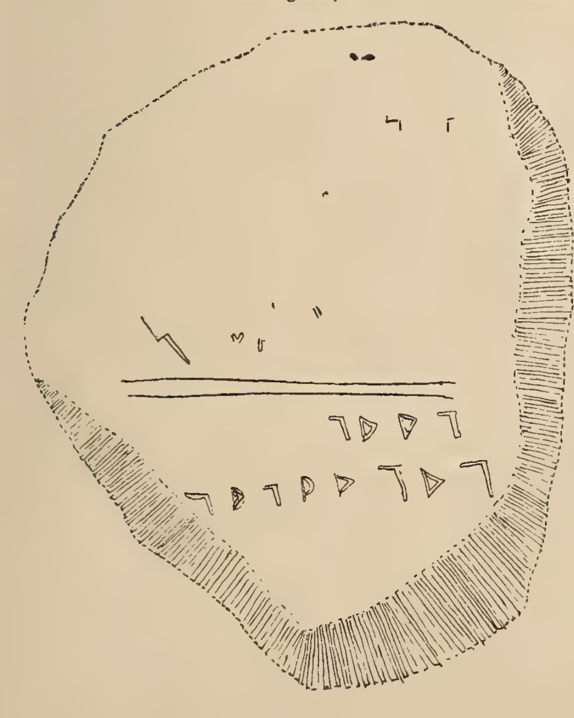
Ἀδὰ]μ ὁ καὶ Ζέβατος ἀπέσταλκα⟨ν⟩ ἐκ τῶν τιμω[ριῶν
ἐρῶσθαι καὶ ζῆν ἀνετείως. οἶμαι μελλοθά[νατος
εἰ⟨δέ⟩ναι, ὅτι τριετής εἶμι ἀπηγμένος, ὅ[μως
καὶ Θέων τὰ ἐμὰ ἔχων γίνεται, [τ]ῶνδ' ἕν[εκα,
5 *ὅτι ἡ ἐς σὲ χρεία οὐδαμῶς σοι προσαπέσ[τ]α[λ*
ται, ἀλ' ἐντρεπόμενος ἐπὶ τάμὰ δεσμ[ὸ]ν
ἀπὸ βίας ἔχω τοῦτον ἐγώ. ἡνίκα γὰρ καθῆ[κε
φανερῶς μετὰ κυνῶν βασανίσαι με [ὁ-
μοῦ τοῖς τοιχωρυχήσασι τὴν τυμβίαν

10 θ[έ]σιν τῶν ἐμῶν ἅτε ἀπολομέν[ων
καὶ [ὡ]ς ἐπὶ ἀγαθῷ ποιοῦσι διὰ τὸν δεσμόν,
καὶ ἐ[θ]υμήθην, εἰ μήπου ἑκαστοτέ τι[ς
ποινὰς ἐκλύσας μέχρι τοῦ ἀποστερη-
θῆναι τὸν ποδαγρικόν, βιαί(ω)ς ἀπολοίμη[ν ἄ]ν,
15 ὥστε, ἄντε σωθῶ ἄντε ἀφεθῶ, ὥρα μὲν [ἐ]λ-
θ]εῖν σήμερον διά σε τὴν σωτηρίαν,
ἐπεὶ ἀνε[τ]ῶς μαστισθεὶς κινδυνεύω [κα]ὶ
μηκέτι δυνάμενος δεσμὸν ἐνεγκ[εῖν,
ἀξιῶ σε τὸν προσκαιρῶσαι (?) τὴν . . . . .
20 . . . δυνάμενον, διά σε τοῦ (or δι' ἄστρου ?) φωτιστ . .
. . . . ἄνθρω[πο]ν ῥιπτάσαι περιδεῶς, ὅτι
. . . . τὴν ζηλ]οτυπίαν καὶ ἐς τὸ ψυχ[ρὸν

Line 23, τὸν ; 24, πᾶν ἐγὼ ; 26, ἅμα ἀξιῶ.

Coming to details, we may notice: line 1. ὁ καὶ : the **O** is an emendation from **λ**. ἀπέσταλκαν, a common form in later Greek, *see* Buresch, *Rheinisches Museum*, 46, 193; Schweizer, *Pergam. Inschr.*, 167. Here it is miswritten for ἀπέσταλκα. 2. ἀνετείως does not occur elsewhere. ζῆν ἀνετείως must mean 'to live for countless years,' or = ἀναιτίως (?). 3. ὅτι is an emendation from ἅτε. 5, 6. I do not understand the meaning of these lines; they seem, however, to be correctly copied. 8. κύνες, an instrument of torture, like the Latin *canis*, *Plaut. Cas.*, II, 6, 389. 12, *sqq.* I cannot catch the meaning. 19. προσκαιρόω, an unauthenticated form: καιρόω means to plait, braid. 22. "Hatred will become cool."

Nos. 36–41.—Inscriptions of Special Meaning.

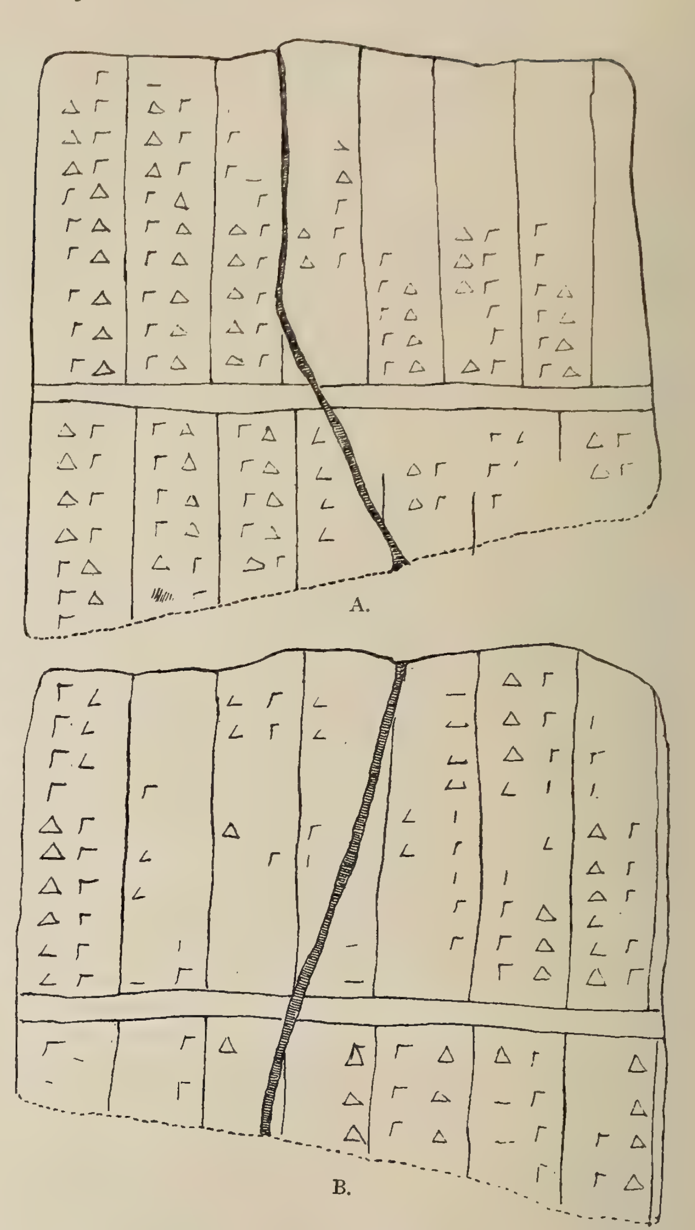


No. 36.—A fragment measuring $0^{\mathrm{m}}{\cdot}1$ in height, and $0^{\mathrm{m}}{\cdot}08$ greatest breadth. The space for the inscription is divided by two parallel lines: in the upper half one can trace the remains of a (Hebrew?) inscription; in the lower half there are two lines, wherein the letters **Γ** and **Δ** appear alternately, apparently at random.

⅂Δ Δ⅂
⅂Δ ⅂Δ Δ⅂ Δ⅂

The writing is from right to left. These same letters appear in the same fashion on No. 37.

No. 37. — A rectangular tablet, measuring $0^{m}\cdot1$ in breadth, $0^{m}\cdot015$ in thickness, and $0^{m}\cdot085$ in average height. The lower edge is broken away. The parts which are in our hands are divided by horizontal lines into two parts, and by perpendicular lines into seven parts. In all the columns we find the letters **ΔΓ**, alternating with **ΓΔ** (*see* No. 36), in the upper half ten times repeated, and apparently originally ten times also in the lower half. If the column begins with **ΔΓ**, this turns in the fifth line into **ΓΔ**, and on the contrary. The back of the tablet, B, is arranged exactly like the front, A. I shall endeavour to give an explanation of this tablet further on.



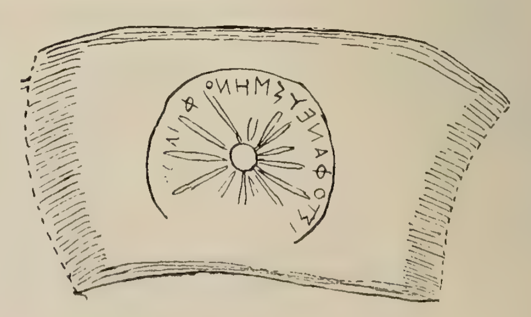
Nos. 38–41.—Rhodian Jar-handles.

No. 38.—$0^{m}\cdot08$ high, $0^{m}\cdot04$ wide, broken at each end. Device, a sun with long rays. Inscription reads to the left hand.

. . ΛΙΦΟИΗΜΣΥƎИΑΦΟΤΣΙ . .

Ἀρ]ιστοφάνευς Μηνοφίλ[ου

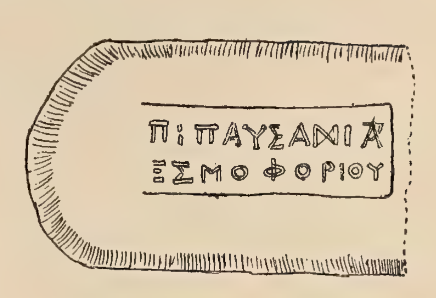
Perhaps it should be ἐπ' Ἀρ]ιστοφάνευς.

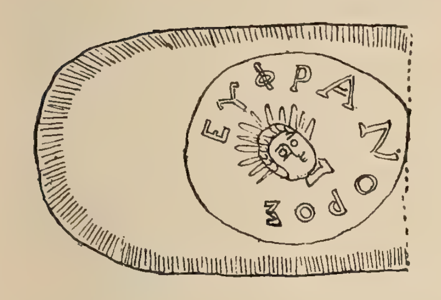


No. 39.—0^{m}·065 high, 0^{m}·04 wide; broken at both ends.

.ΠΙΠΑΥΣΑΝΙΑ
.ΕΣΜΟΦΟΡΙΟΥ

'Ε]πὶ Παυσανία
Θ]εσμοφορίου





No. 40.—0^{m}·065 high, 0^{m}·04 wide; broken at the upper end, carefully cut off at the lower. Device, head of Helios.

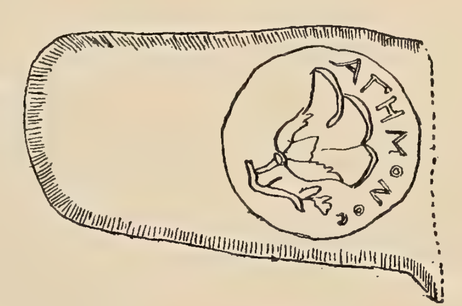
ΕΥΦΡΑΝΟΡΟΣ

Εὐφράνορος.

No. 41.—0^{m}·075 high, 0^{m}·04 wide; broken at the upper end, cut off, apparently, at the lower. Device, a rose.

ΑΓΗΜΟΝΟC

῾Αγήμονος.



Now if we wish to explain the meaning of the inscriptions described above, we must begin by fixing their date. This task is rendered less easy by the consideration that in a "find" of this sort we cannot be sure that all the inscribed stones are of the same period. On the contrary, there are several points which seem to indicate that we have here inscriptions of various periods jumbled together. In the first place, the jar-handles Nos. 38–41, form a group apart by themselves, the date of which can be distinctly fixed. They belong, as their inscriptions show, to the IInd and IIIrd centuries B.C., and they were imported into Palestine from the island of Rhodes. We know their origin by means of their identity with similar handles which are found in Rhodes, and which are now mostly in the British Museum. We may divide these inscriptions into two classes: one class consists merely of a genitive, and gives the name of the dealer out of whose warehouse the jar came; on the other hand, a genitive preceded by *ἐπὶ* indicates the "eponymous" magistrate of Rhodes for the year in which the

vessel was made. Thus the inscription on No. 39, ἐπὶ Παυσανία θεσμοφορίου, signifies in the year of Pausanias, and in the month Thesmophorios. Sixteen other jars are extant which are dated from the time of Pausanias (*Inscriptiones Græcæ Insularum*, I, No. 1179); and one of them, indeed (1179, 11), bears the date Thesmophorios, like the above. This Pausanias is perhaps the same official who appears on a coin of Rhodes (Mionnet, III, p. 422, No. 213). The other three handles show at once by their pictorial decoration that they came from the island of the Sun-god (Nos. 38, 40), which also bore the name of the Rose (No. 41). Nos. 40, 41 are evidently trade marks, and in *I.G.I.*, I, 1303, we find a Rhodian dealer named Euphranor, who also uses the head of the sun-god as a "mark" (1301, 1–3). Ἁγήμων is also shown to be a Rhodian merchant by *I.G.I.*, I, 1214. Whether in No. 38 we have the "mark" of a merchant or of an official remains uncertain, as we cannot know whether an ἐπ' has been destroyed before Ἀριστοφάνευς. Aristophanes was a magistrate of Rhodes, *I.G.I.*, I, 1102; the name Μηνόφιλος (*see* No. 38) occurs twice in this island, *I.G.I.*, I, 730, 1 (*circa* 100 B.C.), and again *ib.*, 644 (in the Roman age).

Whilst the date of the Rhodian jar-handles can be easily fixed by means of the character of the inscriptions, we find this clue wholly wanting when we deal with Nos. 36 and 37. These are the inscriptions which consist entirely of the letters Γ and Δ written in a fixed order. The form of these letters, as we here have them, gives no information as to whether they were written in the IVth century B.C. or A.D., and the meaning of the two tablets is also very problematical. We must begin with No. 37, where the regular order in which the letters are arranged is still perceptible. No. 36 is a mere hasty epitome of it. Now it may be observed that in No. 37 there appear to be exactly seven columns. I can only explain this by supposing that they refer to the days of the Semitic week. It was a well known superstition of the ancients that certain days could be set down beforehand as lucky or unlucky. The Emperor Nero patronised this superstition, as Pliny relates (*Nat. Hist.*, XXX, 16). In the magical papyrus at Leyden, V, XI (Fleckeisen's *Jahrb.*, *Suppl.*, XVI, p. 814) we still possess a calendar of the lucky and unlucky days of the month. Now "good fortune" in Hebrew was signified by גד, the Greek transliteration of which is ΓΔ, the very same combination of letters that we have on our table. If ΓΔ signified "good fortune," we come very near to the conclusion that the reversed letters ΔΓ would mean "ill fortune." I am inclined to think, therefore, that No. 37 is a list of the lucky and

unlucky days of the year; of course, if it were complete, it ought to contain fifty-two lines to correspond with the number of weeks, and not forty only, as the shape of the fragment would at first lead us to conclude. In No. 36 we have the same class of ideas: it appears, if our theory is correct, to relate to six days of the week. In this case the writing, as the form of the letters shows, is from right to left; perhaps we may look on this as a proof of the Hebrew origin of these beliefs. It is impossible to refer these objects to any special period; the only *post quem* limit that can be assigned is the previous existence of a Greek-writing population at Tell Sandaḥannah.

The stones which we have hitherto described invite special consideration by some marked peculiarity; but the remainder, on the other hand, constitute a uniform group, the inscriptions on which are of a wholly similar character. They display a state of transition from an elaborate style of inscription in capital letters to a more cursive mode of writing, and we can perceive that the greater part of the writers evidently tried to reproduce the older characters of official inscriptions on stone, but, at the same time, were continually tempted by the softness of the material to fall into the more modern style of every-day handwriting. It is very difficult, however, to fix the date of this mode of writing; as we know but little of the development of the Greek running-hand. We can only say of the whole collection, from No. 1 to No. 35, that, judging from the form of the letters, they are later than the IIIrd century B.C.—seeing that certain older types do not appear in them—and that they are older than the IVth century A.D., inasmuch as the inscriptions which offer the closest parallel to them, the Sethianic *imprecation tablets* from Rome, show that in the Vth century the running form of writing was much more developed. But this wide range of period is considerably narrowed when we observe the phonetic indications. The texts show that a certain confusion between ο and ω was beginning to appear. We find in No. 16, Ζήνον[α]; 29, Δωρωθέα. This kind of transposition (putting aside a few isolated examples) begins in the time of Hadrian (Meisterhans-Schwyzer, *Grammatik der Att. Inschr.*, p. 24). The somewhat later tendency to exchange ε and αι only appears in one instance: No. 34, line 8, κεφαιλαλγεῖν = κεφελαλγεῖν; here the α of the second syllable is evidently assimilated to the ε of the first. On the other hand, the change of ι for η, for which there might have been ample opportunity in the longer inscriptions, is altogether wanting. As this transposition, not yet visible here, had already become frequeni in 150 A.D. (Meisterhans-Schwyzer, *ib.*, p. 19), we may

positively assign the Sandaḥannah stones to the IInd century A.D. Of course we must take into consideration the possibility that some of the stones date from the beginning, and some from the end of that century. Nos. 36 and 37 probably belonged to the same time; whereas Nos. 38–41, as it is said, are several centuries older.

We proceed now to inquire into the contents and meaning of these inscriptions. These are most clearly exhibited in No. 34. Philonides and Xenodikos have done an injury to Pankles (line 12), the author of the inscription. These two men, and another person who is not named (lines 6, 7), have contrived that he should suffer from headache and other maladies, in consequence of which he was obliged to give up a situation in the household of Demetrius. They had probably effected this by means of a form of imprecation (line 10) which had afflicted Pankles with a kind of helplessness [palsy ?] (line 12, ἀγνωστίη, interesting as showing an Ionic form in conjunction with the Doric Φιλωνίδας, line 13). He desires accordingly to deliver up his enemies to the punishment which they have deserved; he appeals to the god to whom they had addressed their imprecation, and beseeches him to deprive them of speech and the enjoyments of love (line 15, ff.).

This text leads us to the well known subject of ancient imprecatory rites. Especially conspicuous among them is the περίδεσμος, a prayer which was believed to *fetter* the object of imprecation, *i.e.*, to lame him or kill him outright. The victim would endeavour to defend himself against the curse by a counter-imprecation. We have endless instances of the employment of this form of imprecation in ancient times. I have collected more than four hundred from various sources (*Corpus inscriptionum Atticarum appendix; Defixionum tabellæ Atticæ; Sethianic imprecation tablets from Rome*, Leipzig, 1898; *Rheinisches Museum*, LV, 1900, p. 62 ff., 432 ff.). Among these previously discovered imprecation tablets, those most analogous to the inscription of Pankles are the leaden plates of Knidos (Newton, *A History of Discoveries at Halicarnassus, Cnidus and Branchidae*, Vol. II, Part II, p. 719). These tablets were placed full in the public view in the sanctuary of Demeter, in order to devote to the vengeance of the goddess those who had committed any crime against the property or life of their fellow-men. One of them runs as follows: (Newton, No. 83[a]) "Nanas devotes to Demeter . . . . . the persons who received the trust money from Diokles and have not returned it, but have kept it back . . . . May they be punished by Demeter, because

they have purloined the goods of others." In like manner Pankles devotes his enemies to the vengeance of a god, whose name is unfortunately lost, in lines 1 and 2, desiring that they may be punished, because they have injured him. The same penalties that are invoked upon them are plentifully denounced upon the objects of imprecation in the parallel texts; they are to become ἄλαλοι ἄφωνοι. How customary it was in Greece to curse φωνὴ καὶ γλῶττα is shown by the conjunction in *Def. tab. Att.*, p. 49. I have completed line 16, καὶ τοῦ ἐρᾶν εἶεν ἄμοιροι, by help of the magical papyrus at Paris (ed. C. Wessely, *Denkschr. der Wiener Akad.*, Vol. XXXVI, p. 53), *v.* 351: ἡ δεῖνα μὴ βινηθήτω μὴ πυγισθήτω, κ.τ.λ.

No. 35 is evidently intended for the same purpose as No. 34; an innocent man has suffered wrong, and appeals to the deity for help and redress. That the address is made to a deity appears plainly from line 19 ff., which is, unfortunately, not quite legible, but in which the word φωτίζειν = to illumine, is clearly visible. It relates to the personage addressed, and could not well be applied to a mortal. The name of the writer, if we may trust to a pretty safe conjectural reading, would appear to have been Adam, and his surname Zebatos. The latter is probably a Semitic name akin to Sabbatios, Zebedaios. Adam, being in prison, sends a petition to the god: as he is not writing to a mortal man, the customary epistolary form of commencement does not contain the name of the personage addressed. This view seems to be confirmed by the fact that he speaks of his immortality (line 2, if ἀνετείως is right), but on the other hand there is something curiously anthropomorphic in the manner in which he "*wishes him* '*health*.'" Then he proceeds to complain: "I know and believe that I am near to death; for it is now three years since I was thrown into prison, and Theon distrained upon my goods and chattels." The statement which follows of the reason of the length of his imprisonment is not quite legible, but perhaps should read: "I have lain thus long in prison because I have never yet turned to thee; but have constantly in my fetters thought of myself only." Then follows the cause of his imprisonment, and a complaint of unjust treatment in the course of legal proceedings: "I have been ruined by tyranny, and it is high time, if ever I am to be saved and delivered, that thou shouldest save me to-day; for I am constantly beaten, and my life endangered thereby, and I can no longer endure my fetters. Therefore, I implore thee"—The only words of the ensuing petition which are legible are "to assuage their wicked malice" (line 22). It is a great pity that this very curious inscription cannot be entirely deciphered: the

difficulty of reading it is increased by the bad grammar of the writer, which makes a complete restoration impossible. We have here a specimen of the language of a man of the "people," who had no acquaintance with Greek rhetoric; many of his peculiarities of style may also be derived from his native Semitic tongue.

The invocation of a god, with intent to bring punishment on the head of an offending person, forms the subject of several other inscriptions. In No. 32 the object of the imprecation appears to be a certain Rusticius: the occurrence of Latin names is not at all uncommon at this period. The vengeance of the god is invoked upon him. In A, line 6, ὧδε παρεσόμενος = coming hither, must refer to this god, for "come hither" is a standing formula of ancient prayer (*see* Fr. Adami, *de poetis scaenicis hymnorum sacrorum imitatoribus*, p. 234 f.). The ἐξορκίζω σε which we find in conjunction with it is also a usual commencement of the adjuration of a superior being—literally an *exorcism.* Ἐξορκίζω ὑμᾶς appears again in No. 31. The provocation for this, No. 31, would seem to have been the embezzlement of some trust-money, just as in the case of the Knidian tablet; at all events the ἀπέδωσαν B 4 appears to be most intelligible if we suppose something like τὴν παρακαταθήκην οὐκ] ἀπέδωσαν, as in the Knidian inscription No. 82 we have οὐκ ἀπέδωκε, and in No. 83, μὴ ἀποδιδόντας. In this case the criminals added perjury to embezzlement; ὑπὲρ ἐπιορκίας B 5. They probably swore that they had never received the trust-money, and, as earthly justice is powerless against perjury, the deity is invoked.

We have thus found that these larger inscribed fragments contain the imprecations of persons who considered themselves undeservedly wronged, against their enemies, and this being so, we shall probably not go far wrong in conjecturing that the smaller stones served the same purpose. In making most of my restorations, I have gone on this assumption, as it has been supported by various peculiarities observed in the remaining stones. The frequently recurring invocation of deities also tends to strengthen it. On No. 24, unluckily, we cannot discover which θεὸς is meant. In No. 21 the conjectural restoration δαίμονες πάτριοι δαίμονες μήτριοι is confirmed not only by the prayer of Peregrinus quoted in the note to that number, but also by the Cyprian imprecation tablets (*Def. Tab. Att.*, p. xviii) and their invocation:—

δαίμονες οἱ κατὰ γῆν και δαίμονες οἵτινές ἐστε,
καὶ πατέρες πατέρων καὶ μητέρες ἀντιένειροι,

Possibly No. 26 contains an invocation of Persephone as Ταρτάρου κόρη. The requests made to the deities are usually much of the same kind as are found in other imprecation formulæ. Following up this analogy, I have ventured to read for **BACA** (No. 29, line 3) *βασανίσαι*, as we find in the Knidian tablet *μεγάλας βασάνους βασανιζομένα*. In No. 27 the hand and heart of an enemy are cursed: precisely the same combination, *θυμὸς* and *χεῖρες*, is found, *Def. Tab. Att.*, No. 52. In No. 26 the adversary is to die within five days; a prayer for which we have also a parallel—the Sethianic imprecation tablet, No. 16, is to take effect *εἴσω ἡμερῶν πέντε* (line 68). Nos. 22 and 24 are aimed at the understanding of the enemy, and in the former his marriage is cursed. Perhaps in this instance the imprecation was merely the result of jealousy. It is easy to conceive a man of the fervid southern temperament invoking divine vengeance on his fellow-men, not only for actual, but for imaginary wrongs. In a great many of these tablets no especial cause for the imprecation is alleged. We find such a statement in only one of the other inscriptions, No. 27, which seems to have been provoked by a calumny (*οἱ λέγοντες*).

The objects of these imprecations are generally of the servile class, plainly showing in what rank of life the superstition was most active. In No. 29 the adversaries are named Thouergos, Aigyptos, Dorothea, and Memnon, names which strongly indicate slaves and freedmen. No. 28, line 4, even mentions an *αἰχμαλωτίς*, and in line 5 the slave-name Καρίων occurs. Only a few of the names seem to point to higher rank, as for instance in No. 17, and the Roman names in Nos. 26 and 32. Here and there relationships are mentioned; sometimes this is done in order to give an accurate description of the person against whom the curse is levelled by defining his relationship, sometimes for the purpose of striking at an enemy through his family. Twice we hear of a bridegroom (*νυμφίος*, Nos. 21, 33): possibly the imprecations in these cases were due to disappointments in love.

Some tablets contain only a single name, often with the paternal name affixed, sometimes the same name is written twice over (No. 19, Χαρὰ Τρύφωνος; No. 18, Θεόδωρος, No. 30, Ἐλπαγόρας). We could make nothing of these stones, did we not know from the example of the Attic leaden tablets (*Def. Tab. Att.*, Nos. 1–39, pref., p. iv) that it was considered sufficient to write down the name of the enemy alone, reciting the appointed formula at the same time; the god invoked of course knowing what he was entreated to do. On two stones (Nos. 3 and 10) characters occur which are not letters of the Greek alphabet, and rather suggest the idea of magical

signs. We have precedent for this also in the Attic tablets (*Def. Tab. Att.*, No. 123 ff.): by this mode of writing it was made impossible for an uninitiated person to read the imprecation.

In spite of all these close resemblances to the imprecatory spells discovered in other places, we cannot of course maintain with absolute certainty that all the stones found at Tell Sandaḥannah were inscribed with this purpose; but it seems highly probable that they were, and I am inclined to detect some connexion with this custom even in Nos. 36 and 37. It seems by no means unlikely that tables of lucky and unlucky days were used to exercise a magical influence on other men's fortunes. It is remarkable that all these inscriptions are written on limestone. The word-formulæ of imprecation closely resemble those which are already known, but the material on which they are inscribed is without precedent. It is true that the prevailing custom of using lead was not always adhered to. We find the curse of the freed-woman Acte written upon a stone altar in the city of Rome (*Corp. Inscr. Lat.*, VI, 20905 = Buecheler, *Carmina Lat. Epigr.*, No. 95), and an inscription from Spain (*Corp. Inscr. Lat.*, II, 462) on marble: this relates to a case of stolen goods, exactly resembling No. 31. I may mention also that the oldest imprecatory text which we have corresponding to the Tell Sandaḥannah inscriptions is written on paper. This is the papyrus of Artemisia, which was placed in the temple of Serapis in the IIIrd century B.C. (*Def. Tab. Att.*, p. xxxi). In this document Artemisia informs the deity that her husband declines to bury one of their children, and beseeches the god to punish him if he persists in his refusal. In all these cases the choice of a material for inscription was considered by no means an unimportant matter. It was dictated by the same superstitious ideas which governed the whole business. Lead is universally looked on as a deadly metal (*Def. Tab. Att.*, p. iii), and in Egypt the sacred paper, the χάρτης ἱερατικὸς, was used for these appeals to the gods (*Brit. Museum, Pap.* XLVI, 308). And in like manner doubtless, in Palestine, limestone had some superstitious significance, but of what especial kind we do not know. Perhaps it is in this connexion that in the Apocalypse of John "he that overcometh" is to receive a "white stone," inscribed with a "new" spell (Rev. ii, 17), evidently as an amulet. The stones themselves have, for the most part, been used in the state in which they were picked up; some broken-edged as Nos. 2, 35; some already written upon, as Nos. 6, 9, 16, 19, 29. In one instance a piece of a tombstone has been made use of (No. 33); here a

superstitious motive is obvious. Lucian (*Philopseudes*, ch. ii) speaks of magical power possessed by the fragment of a maiden's gravestone.

The place where these tablets should be deposited was also a point to which much importance was attached. The Knidian imprecations were all placed in the sanctuary of Demeter. In Alexandria there was a temple of Artemis, where condemned persons wrote down the cause of their sentence (*see* O. Crusius, *ad Plutarchi de proverbiis Alexandrinorum libellum commentarius*, Tübingen, 1895, p. 44), which strongly recalls the petition of Zebatos. Generally speaking, these tablets were deposited in places where men had met with violent deaths (*Magical Papyrus of Paris*, *v.* 1393, *ὅπου ἥρωες ἐσφάγησαν καὶ μονομάχοι καὶ βίαιοι*), from which we may perhaps infer that the place of execution at Tell Sandaḥannah was near the spot where the discovery was made.

In addition to the custom of anathematising enemies by means of these stones, the rite of bewitching by means of dolls was prevalent in this place. These "revenge-dolls" have been common in all nations (*see Globus*, Vol. XXIX, 1901, p. 109); those that were found at Tell Sandaḥannah have been described by Mr. Bliss in the *Quarterly Statement*, 1900, p. 332. They are leaden figures, shackled with chains; they were named after an adversary, and it was then believed that whatever was inflicted on them would also befall the enemy himself. This "shackling" is the *περίδεσμος* which Pankles dreads (No. 34, line 10). The true significance of the figures found by Mr. Bliss was first pointed out by M. Clermont-Ganneau (*Comptes rendus de l'Acad. des Inscr. et Belles-Lettres*, 1900, p. 510). I can corroborate his view, as I myself possess one of these leaden dolls which was found in Attica. Its head has been cut off, and two nails have been driven through its body, so that there can be no doubt of its employment as a malignant charm (*see Philologus*, 1902, p. 26).

The appearance of this doll-witchcraft in Tell Sandaḥannah affords a welcome confirmation of our interpretation of the limestone inscriptions. We see here these two ancient methods of imposing a curse, together forming one department of pagan magic, and they give us a valuable side-light on the life of the inhabitants of a little country town in Palestine, and their superstitious ideas, in the IInd century A.D.

R. WÜNSCH.

BRESLAU.

PART III.

THE ROCK-CUTTINGS OF THE SHEPHELAH.

CHAPTER I.

QUARRIES, CUP-MARKS, VATS, &c.

In cutting and quarrying rock-masses the ancient inhabitants of Palestine, in all periods, displayed an energy rivalled in few other countries. It is not too much to say that, at least in the neighbourhood of Beit Jibrîn, and most probably elsewhere, some traces of their activity in this direction remain on every hill. The present section of this memoir is devoted to a consideration of these remains, so far as they lie within the area in which the excavations were carried out. An exhaustive examination of all classes of rock-cuttings would have fully occupied the two years in itself: the notes from which these pages are compiled had to be made in occasional spare hours.

The remains grouped under the general head of "rock-cuttings" belong to widely different classes, serving widely different purposes; and a scheme of classification must be indicated at the outset of the investigation, to be followed in the subsequent pages. The divisions under which I propose to consider the rock-cuttings of the Shephelah are as follows:—1. Quarries. 2. Cup-marks. 3. Vats and presses. 4. Miscellaneous surface-marks. 5. Tombs. 6. Caves and pits.

1. Quarries.—The poverty of the architectural attainments of the natives, especially in the country parts of Palestine, at all stages of their

history, would lead us to expect their stone-quarries to be of small extent. This is actually the case, unless some of the great caves, presently to be considered, be really quarries; a view to which, as will be seen in its place, there are some objections. Setting aside these caves, the only "rock-cuttings" to which the name "quarries" can be applied are certain superficial scarps, to be found in great numbers in the out-cropping rock-masses on the sides and summits of the hills. These are generally not more than 1 mètre in height, and perhaps about 3 mètres in length. The width of the block of stone removed averages about one-half to one mètre. Evidently a very small amount of stone was required when these quarries were resorted to; probably they were cut only when the available field stones—the ordinary material for houses, as has already been noticed—were not in sufficient sizes to be serviceable. The shape and dimensions of the portions of stone removed suggest that these small surface-quarries were the sources of the long stones used for covering the entrances to tombs, the roofs of narrow rooms and passages, and other horizontal openings.

2. Cup-marks.—To the eye of the archæologist the world seems surrounded by girdles of ornamental patterns or of objects, which are found in very different places and among very different peoples in singularly similar forms. One of these strange and inexplicable zones is the swastika-area, which extends all round the world between lat. 10° and 60° N., with a few sporadic examples outside its limits. The equally well-defined chains of spiral ornament and of dolmens will naturally occur to the reader. As remarkable, and perhaps even more difficult of explanation, is the immense area of cup-markings.

It is not my present purpose to add to the general literature of the subject, which, considering its extent, has made singularly little headway in elucidating the problems involved. I shall confine myself to describing the characteristics of the cups or groups of cups as they came under my own observation, and to pointing out several obvious deductions to be drawn from them.

Scarcely a hill—in some hills scarcely a rock—does not display one or more of these markings. They are found singly or in groups, and in all sizes from 1 to 1·3 mètre across and 60 centimètres deep, to tiny circular depressions scarcely 4 centimètres in diameter.

The shapes of the cups vary considerably. Some are shallow saucer-

shaped depressions; but the normal Palestinian cup is relatively deeper than those found in the British Islands, and has sides vertical in the upper part, curving inwards below. The best comparison for giving an idea of the shape seems to be a half-melon, cut along the minor axial plane.

There is little to indicate the nature of the tools or the method of operation by which the cups were hollowed out. Even those found in the bottoms of shafts, which must have been buried for nearly 4,000 years, were weathered smooth. There were not wanting slight traces that might lead the investigator to infer that they were brought to their final shape by friction, a stone or similar object being rotated within them. This would satisfactorily account for the regularity noticeable in the shape of almost every example.

There is as little indication in Palestine as in other countries of the period to which the cup-marks are to be assigned. The only definite fact that can be brought into evidence is the circumstance just alluded to—the discovery of cups made in the surface of rock covered with débris. Such discoveries were made both at Tell Zakarîya and Tell eṣ-Ṣâfi. A cup of normal Palestinian type, 25·4 centimètres in diameter and 24·2 centimètres deep, was found at Tell Zakarîya under an accumulation of 3·2 mètres, of which the lowest mètre contained pottery comparable with that of the second city at Tell el-Ḥesy (dated in Bliss, *M. M. C.*, p. 138, about 1550 B.C.). A yet earlier date was indicated by a similar discovery at Tell eṣ-Ṣâfi; here the pottery rather approximated to the type of the first city at Tell el-Ḥesy, and the minor limit would thus be put back another century.

It cannot of course be assumed that all the cups to be seen on the exposed rock-surfaces necessarily date from such remote antiquity. Probably the purpose which they served was one for which they would equally be required in later times. The problem of their purpose is yet more obscure than the question of their period, and there are even less definite indications from which to draw inferences. It is unlikely that one purpose can be found which would satisfy the conditions of every specimen; in fact it seems certain that they fulfilled very various necessities, and that each example must, so far as possible, be considered independently.

Little assistance is to be expected from local tradition in investigating the question. I enquired of several of the more intelligent fellaḥîn with whom I came in contact as to whether they had any knowledge of the

purpose of such cuttings. Nearly all, after a delay (obviously occupied in the mental processes of evolving a guess) told me they were "for water." One man assured me further that they were for "watering cattle," while another told me that they were for pressing olives, intended for use when a limited quantity of oil was required for immediate use. There is probably a little truth underlying each of these theories, but neither they nor any other will explain all cases.

It is not unlikely that some of the cups had a religious or superstitious use or signification. One almost hesitates to make the suggestion, as it recalls the lurid pictures which generations of charlatans have called up from their imaginations of "druids" officiating at "druid altars" with cups and channels to "catch the blood of the victim." Such extravagances have brought undeserved discredit on some perfectly legitimate theories, one of which is that cup-marks were meant as receptacles for offerings to the shades of the dead. This is the view expressed by Prof. Montelius in discussing the similar cups found associated with neolithic tombs in Sweden (see *Les temps préhistoriques en Suède*, French edition, p. 38); and it often seemed to me the only possible explanation of cups found in remote and barren mountain-sides, which showed no indication of having ever been inhabited or cultivated.

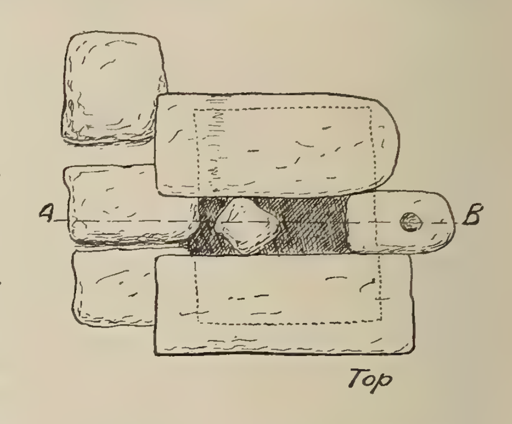
It is true that what little we know of early Semitic eschatology does not seem to favour such a hypothesis: the shades of the dead seem to have been of very small account in that system. But the remote date which has already been indicated makes it at least conceivable that the cups are rather the work of the pre-Semitic aborigines, in whose religion, as in most primitive religions, ghost-worship may be assumed to have held an important place.

Another objection—and that one which at first sight appears to be of considerable weight—to the assignment of Palestinian cup-marks to a religious purpose, lies in their want of connexion with places of sepulture. They are all cut on bare rock-surfaces, and often the most careful search fails to reveal any trace of a tomb in the neighbourhood. The explanation is very simple—the tombs have disappeared. It is well known that no tomb-chambers have been discovered in Palestine of remote date; the probability is that none exist, and that sepulture was performed otherwise. And a lucky chance has preserved to us, in a remote valley near Tell Sandaḥannah, one example of a prehistoric place of burial from which we may

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infer the method of disposal of the dead before the introduction of rock-cut tomb-chambers.

Fig. 64 is a cist, lying at the side of a roadway which has been levelled up to its top surface. The chamber, built up of comparatively small boulders, measures 60 centimètres in height, 1·98 mètre north to south, 1·67 mètre east to west. Two great stones, each about 2·15 mètres long, 91 centimètres broad, and 32 centimètres deep, span the chamber, lying east and west (the orientation is very slightly south of east). Between these stones is a gap 50 centimètres wide. In the middle of this gap an irregular stone has apparently fallen, and been caught by the two great cover-stones, which suspend it between them. At the eastern end of the gap, however, is a stone which certainly forms part of the original design of the monument. It is 91 centimètres long, 50 centimètres broad, and of the same depth as the cover-stones. In the centre of its upper surface is a cup-mark 1·78 centimètre broad and 1·52 centimètre deep. This is the missing link connecting West Palestinian cup-marks with places of sepulture, for there can be no reasonable doubt that this cist is an ancient tomb. No doubt it is a survivor of a type once fairly common; but it has been the fate of Palestine to have been occupied by iconoclastic and vandal races for the whole extent of its written history, and between the zeal of reforming kings and prophets, and the utilitarianism of fellaḥîn, we cannot wonder at the almost total disappearance of megalithic monuments from within its borders.



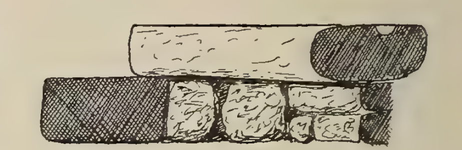


FIG. 64. DOLMEN: TELL SANDAḤANNAH.

It may therefore reasonably be assumed, first, that this particular cup was cut with some such religious purpose as we have specified: and secondly, that other cups still existing had the same purpose, and remain to us as the sole record of a dolmen or other destructible monument which has long since disappeared. We may now proceed to discuss the more prosaic purposes that have been suggested in explanation of Palestinian cup-marks.

I have already indicated that the vague suggestion that they were "for water" is an obvious guess, and in many cases is quite inadmissible. There could be no possible reason for cutting all over the mountains receptacles for water which would in many cases not hold more than a quart, and from which the water would evaporate in a couple of days. The majority are too small to be of any use for watering cattle, and they are often placed in such positions that cattle could scarcely, or not at all, make any use of them. On the other hand, large deep cups are not infrequently found in the neighbourhood of ancient cisterns; and an analogy with modern customs may very fairly be indicated in connexion with these. Round the well from which the modern villagers draw their water there is always a heterogeneous collection of hollow stone troughs, ancient vats, and similar receptacles, which are used for watering cattle and for washing clothes. The large cups—they may almost be called rock-cut vats—beside ancient cisterns in all probability served similar purposes. We may therefore set aside a certain number of the cups and admit that in their case the guesses of my fellaḥ informants are probably correct: that they were "for water," whether for cattle or for washing purposes. But the proportion of the cups which can thus be explained to the remainder is very small.

The other fellaḥ explanation, that they are small olive (or grape) presses is not only more reasonable, but in a great many cases is certain. For we find that many cups are associated with a sunk oval space, smoothed in the rock (on the circumference of which space the cup is cut) and bearing one or more channels by which liquid pressed out on the oval floor is conveyed into the cups. Many of this type of cup are found at or near places where olive plantations still exist. There are several varieties of the type. In some the oval is simply a ring with the cup on its circumference, and with the surface within the ring not smoothed away. (These are perhaps unfinished.) In others the ring is curved into a spiral form.

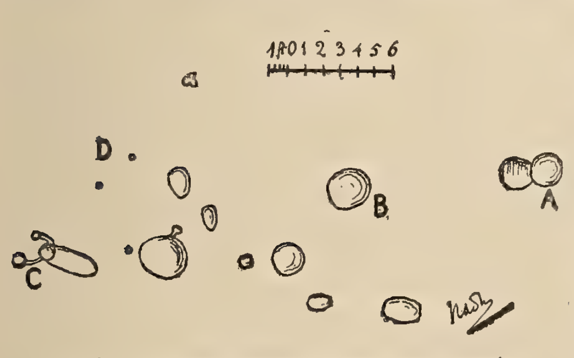


FIG. 65. NORMAL GROUP OF CUPS: TELL EṢ-ṢÂFI.
A. Cup with oval space annexed.
B. Ordinary cup.
C. Cup with subordinate cups connected with it by channels.
D. Minute cups.

But in all cases the cup is obviously the receiver of a press whether for olive oil, grape juice, or *dibs* (grape treacle). This class therefore belongs more properly to the heading of vats, next to be described, though the two classes of rock-cuttings cannot entirely be dissociated.

While alluding to the subject of cups associated with ring-drains, it may be convenient to mention that after carefully studying probably over a thousand cups and groups of cups, I am able to say that the association of cups with ornamental concentric circles and allied symbols, such as we find so constantly in Scandinavia, the British Islands, and elsewhere, is unknown in Palestine. When cups are associated with channelled markings in the latter country, the channels have always an easily recognised utilitarian purpose: they are designed to collect liquid and convey it to the cup.



FIG. 66. CUP WITH SPIRAL CHANNEL: TELL EṢ-ṢÂFI.

These various explanations, widely diverse though they be, do not account for all the phenomena of cup-marks in Palestine; at least two classes of cups are not touched by them, and there are besides certain isolated specimens which still present perplexities. The two classes of unexplained markings are the minute cups, and those on vertical faces of rock. The minute cups are to be found in considerable numbers at Tell eṣ-Ṣâfi, sometimes forming large groups (Fig. 67), occasionally connected in sets by little channels; in fact they are Liliputian replicas of the perhaps less unintelligible groups of larger cups. It is of course possible to call to our assistance that last refuge of the archæological destitute—the theory that they are part of the apparatus of a game of some sort—but such a guess has, to my mind, even less to recommend it than the suggestion of the fellaḥîn, that the larger cups were meant "for water." Cups on vertical faces of rock—which of course would not hold any liquid



FIG. 67. GROUP OF MINUTE CUPS: TELL ES-ṢÂFI.

—though common elsewhere, are extremely rare in Palestine. I found two examples only, both at Tell eṣ-Ṣâfi (Fig. 68). Prof. Montelius brings these within his theory (which at first sight they would seem to negative), by assuming that they were meant for gifts of some such substance as butter. This is a possible hypothesis in the case of the Tell eṣ-Ṣâfi cups. I do not commit myself to adherence to it, but have no rival suggestion to offer.

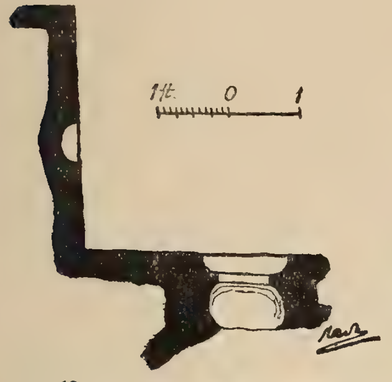


FIG. 68. SECTION OF ROCK-SURFACE, WITH A CUP ON THE VERTICAL FACE: TELL EṢ-ṢÂFI.

Further, a few specially remarkable examples of cup-marks are to be found here and there which do not appear to be referable to any of the groups already described. Chief among these is a very singular group at Tell ej-Judeideh (Pl. 89). It occurs in an area about 48·25 mètres long by 36 mètres broad, and contains in the exposed rock-surfaces a little over 100 cups. One stone toward the northern boundary of this area is specially remarkable for the number of cups that it bears (twenty-four very close together and another by itself), and still more for their peculiar shape. They are, for the most part, long, narrow cylinders, such as I have not seen elsewhere. A narrow path has been formed at some time beside this stone, and several of the cups have been partly cut away. One is strongly tempted to call this an "altar," and to refer to the libations poured on the rock by Gideon (*cf.* also the story of Manoah). There is no special reason, however, why this particular stone should have been selected for such a purpose, and I confess myself dissatisfied with the explanation. A special search was made for tombs in its vicinity, but in vain.

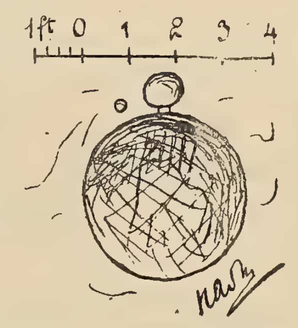


FIG. 69. LARGE VAT WITH SMALL CUPS ASSOCIATED: TELL EṢ-ṢÂFI.

Again, at Tell eṣ-Ṣâfi we have a large cup or vat, 1·11 mètre across and 60 centimètres deep (Fig. 69). Beside it is a smaller cup 17·8 centimètres across, and of the same depth. A channel 5 centimètres deep connects the two; evidently some liquid was poured into the smaller cup and was supposed to overflow into the larger. Clearly we have not here the pressing and receiving vat of an olive press (the nature of which will be described in

the following section), for the smaller cup being deeper than the channel, would hold a certain amount of oil that would not flow into the larger cup at all. The relative sizes of the two vats prevent our regarding the smaller cup as a refining vat, *i.e.*, a vat in which the oil or grape-juice was allowed to stand till the sediment it might contain should sink to the bottom (the channel being temporarily stopped up) and the purified upper level then allowed to run off into the receiving vat. A simple calculation based on the relative contents of the two cups and of the part of the smaller cup above the level of the channel, shows that in order to fill the larger cup the smaller would have to be filled, and its contents refined 625 times.* The question is further complicated by the presence of a smaller cup, 7·6 centimètres across, 2·5 centimètres deep, closely associated with these two, but not directly attached to them.

3. VATS AND PRESSES.—There is little to say with respect to this numerous class of rock-cuttings. The purpose for which they are made is obvious, and they do not present many varieties.

The normal olive-press consists of three members—a pressing vat, a conducting channel, and a receiving vat. The fruit was bruised in the pressing vat, which is usually a mere shallow sinking a few inches lower than the surrounding rock-surface. The juice then ran down the channel and collected in the receiving vat.

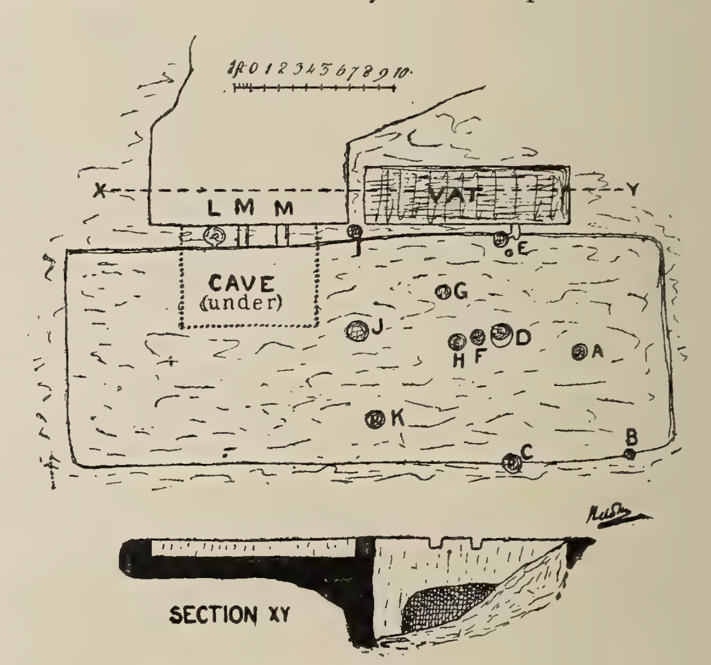


FIG. 70. OLIVE-PRESS, TYPE (I): TELL EṢ-ṢÂFI.†

The following are the principal varieties (in plan) from this normal

* It is assumed for convenience that the cups are ellipsoids of revolution, and that also no evaporation would take place while the operation was in progress.

† The index-letters refer to the special description of this vat (*Q.S.*, 1900, p. 31 ff.), which gives details not thought necessary to reproduce here.

type. (1) Sometimes there is no connecting channel between the two vats, the liquid being baled out by hand. In this case there are frequently cup-marks in the bottom of the pressing vat in order to collect the juice and thereby to facilitate the baling process, while at the same time the liquid was allowed to stand and sediment was thereby removed from it. (2) The receiving vat is sometimes provided with a spout or channel by which the juice could be run off into vessels. (3) An intermediate refining vat is sometimes added for the same purpose as that just mentioned—to allow the juice to stand and to deposit sediment before collecting in the receiving vat, while on the other hand (4) the apparatus sometimes consists of pressing vat only (Fig. 72), the receiving vat being altogether omitted—its place in this case was supplied by portable vessels or by cup-marks cut in the bottom of the pressing vat.

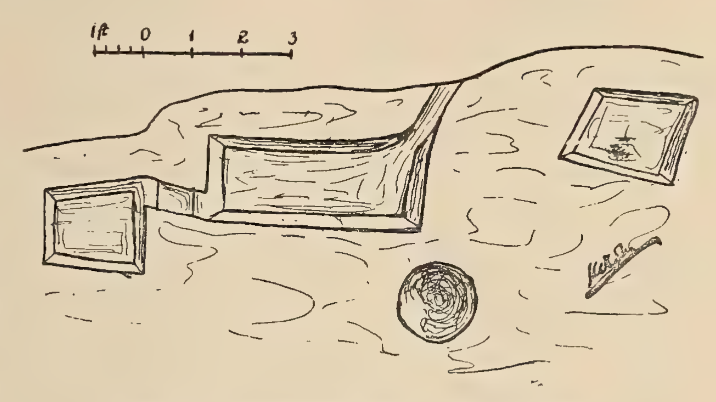


FIG. 71. OLIVE-PRESS, TYPE (2): TELL EṢ-ṢÂFI.

As examples of variations in details may be noticed the floor of rough mosaic with which all three vats are paved in a press at Tell eṣ-Ṣâfi (Fig. 73), and in another in the garden known as "Abraham's Vineyard," Jerusalem; and the curious press close to the "Tombs of the Judges," north of Jerusalem, in which the conducting channel is vertical, running down a rock-scarp, in the top of which is the pressing vat, and in the side of which is a trough-like receiving vat. (Figured in Clermont-Ganneau's *Arch. Res.*, I, p. 271.)



FIG. 72. OLIVE-PRESS, TYPE (4): TELL EṢ-ṢÂFI.

The great rock-cut olive presses at Tell Sandaḥannah, which are among the most interesting of the many extraordinary subterranean details of this hill, will be described in the chapter devoted to caves.

4. Surface-Markings.—Under this heading I may mention (1) an

ancient causeway on the west side of the south spur of Tell eṣ-Ṣâfi, 4·88 mètres broad and 60 to 75 centimètres deep at the top, but widening and shallowing towards the bottom of the hill till it finally disappears. This is probably the ancient approach to the city that was built on the top of the tell. (2) Sets of rock-cut steps, which are very common in rocky roads, where they often serve a useful purpose. Frequently, however, sets of steps are found (there are two examples at Tell Zakarîya which may be quoted in illustration) which are not associated with any roadway. In such cases they probably survive as records of ancient causeways of which they once formed part. Thirdly, I may refer to a set of three marks that I have already described and illustrated (*Q.S.*, 1900, p. 38). From their shape I have called them V-marks. They are grooves cut in the edges of three adjacent outcrops of rock, on the saddle of the south spur of Tell eṣ-Ṣâfi. It cannot be an accident that they are identical in shape and size, but their purpose is perhaps even more obscure than that of the cup-marks. Since the article referred to was written, another example

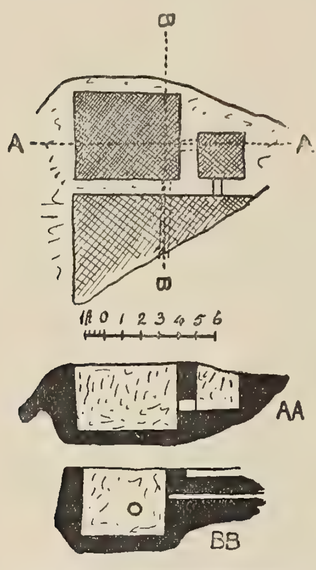
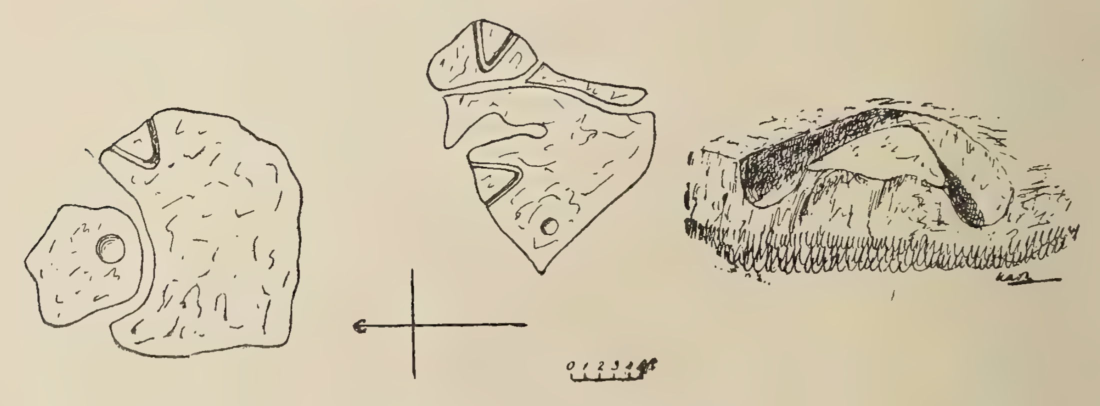


FIG. 73. OLIVE-PRESS WITH MOSAIC LINING: TELL EṢ-ṢÂFI.


FIG. 74. PLAN AND SKETCH OF V-MARKS.

(single) of the same kind of mark has been found by Père Vincent, of the College of Saint-Étienne, Jerusalem, at Sheikh ʿAmbar, east of the Mount of Olives.

CHAPTER II.

TOMBS.

It was mentioned in the section on rock-cuttings that no tomb chambers of very remote date have been found in Palestine. The Machpelah incident indicates that sepulture in chambers or caves was practised in patriarchal times, but no tangible evidence of this custom at so early a date has yet been discovered. The disposal of the dead by the inhabitants of the most ancient cities that have hitherto been excavated in the country is a problem on which the excavations have thrown no light. The earliest tomb-chambers seen within the area of excavation were some roughly excavated examples at Tell ej-Judeideh. Two of these are small examples of the shaft type, which appears to be commoner in Northern Syria than in Palestine; they consist of a cylindrical shaft, rather over 2 mètres deep, hollowed in the rock; a small doorway at the bottom leads into an irregular chamber about 1·80–2 mètres by 1·50 in extreme dimensions.

Large quantities of sherds of Jewish pottery date another of the Tell ej-Judeideh tombs as belonging to the period of the monarchy. This tomb, which was excavated with extreme roughness, consists of a large entrance vestibule from which three other chambers open off. These chambers are all laid out on the same or nearly identical plans, and consist of a gangway with a raised bench tomb on each side and a sunk square pit, about 1·80 mètre deep. The latter no doubt served the function of the ossuaries of later date, and received the bones of decomposed bodies when the graves they occupied were required for secondary interments. This want of permanence in the possession of graves is no doubt one of the reasons for the tantalising absence of inscriptions in the rock-cut tomb-chambers of Palestine.

Another tomb of presumably the same period shows kôkîm. Round Beit Jibrîn the tombs with kôkîm have a distinctive character that is not to be seen in analogous tombs at Jerusalem. The kôkîm are always considerably higher than their breadth, and their roofs are gabled, rarely flat or slightly arched as in the Jerusalem examples. There is an example at

Khurbet Medawwir, the hill opposite to Tell ej-Judeideh across the Wâdy ej-Judeideh, of kôkîm with arched roofs. It is curious that this chamber has later been adapted as a columbarium, so that the receptacles for both types of sepulture are here to be seen together.

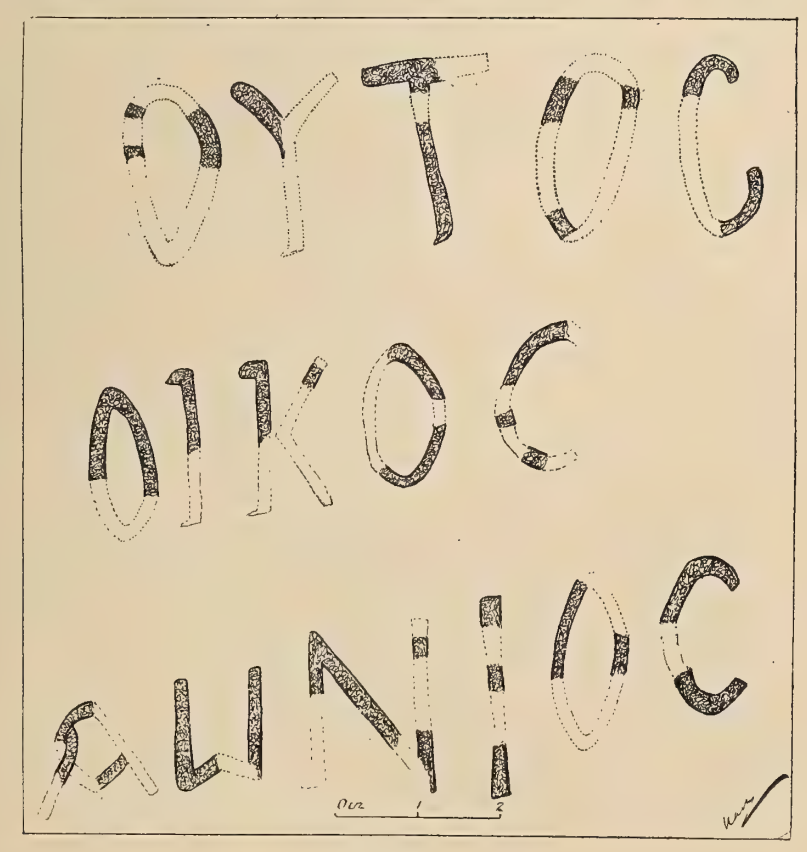
There can be no question that at Jerusalem the various species of tomb-chamber—those with kôkîm, sunk graves, niches, or arcosolia—were used contemporaneously, and that no deductions as to the relative date of chambers can be drawn from the manner in which tombs are disposed within them. The same is no doubt true in the region of Beit Jibrîn. But there is one class of tombs to be found in great numbers in this district which has an unmistakable character of its own. This is the modification of the ancient Phœnician or Egyptian type, dated (by the objects which we found in the few unrifled specimens discovered) to the Seleucidan period.

The essential feature of this type of tomb is a vertical entrance shaft, not (as in the earlier type of shaft tombs) circular on plan, but rectangular; and communicating with the tomb-chamber through the roof, not through one of its sides. In the earlier type the entire shaft was filled up to the bottom with earth when the tomb was filled; in the later, the earth filling extended down about 1·50 mètre only, and is supported over the hollow chamber by long cover-stones lying athwart the shaft, and resting on reveals or offsets in its two long sides. Footholds are frequently cut in the sides of the shaft to facilitate descent. Below the cover-stones there may be either a single grave, just large enough to hold one body; or else a chamber or system of chambers of greater or less elaboration. In the latter case there may be a further drop of as much as 3·50 mètres to the floor of the chamber from the level of the cover-stones. A short and very narrow flight of steps is usually cut in the rock under the entrance-shaft, ending at about the average height of a man below the level of the cover-stones, to assist descent into the chamber.

The normal tomb-chamber of this period consists of a rectangular vestibule, having at one end the flight of steps just mentioned, and at the other end and on each side a wide arched opening. These openings are the ends of the vaulted tomb-cells, which are rectangular on plan and covered with a barrel roof. There are generally three graves in each tomb-cell, one on each side and one lying athwart them at the end. These graves resemble sarcophagi hewn out of the rock, that is to say, they are benches about 75 centimètres high having rectangular graves hollowed

out inside them. The floor of the graves is about the same level as the floor of the gangway beside the grave, or perhaps not quite so deep; the floor of the gangway is usually slightly higher than that of the vestibule, and is approached by a low step.

The soft clunch or chalky limestone of which the hills round Beit Jibrîn are composed lends itself to the easy excavation of such chambers as these, and they are in nearly all cases finished with admirable exactness and regularity. Applied ornament of any description is rare; we found only one example in which remarkably spirited figures of birds were outlined in dark Indian red in the various spandrels of the arches (Pl. 91); some scroll-work of inferior merit was painted in green round the faces of the arches, and on the inner end wall of the central tomb-cell were two figures of flying genii, nude, supporting a wreath, in the centre of which was the inscription—



OYTOC
OIKOC
A[I]ωNIOC

The fellaḥîn who originally discovered the tomb, after rifling the contents, had obliterated nearly the whole of the latter device, under the impression that it was a Christian monument.

The tombs, when occupied, were covered with a row of flat rectangular slabs laid athwart, either loose or else plastered with mud.

Numerous tombs are to be found in which variations are introduced from this typical plan. Sometimes there is but one cell, and in place of the others one or more graves are formed in the vestibule. In one tomb there were four graves side by side in the tomb-cell, instead of the normal two with an intermediate gangway. Another tomb which yielded a rich store of funeral deposits is laid out on an entirely different arrangement (Pl. 90). Here the vestibule is completely occupied by the staircase, and a doorway at its end gives access to the tomb-cell. This is a large four-sided chamber, filled with graves of the same type as those already described, except a small space in front of the door. On one hand are two graves, end to end, their lengths parallel to the side; on the other are five, side by side, their lengths vertical to the sides; in front are two, side by side, parallel to the first two.

There is a detail which is of very common occurrence in the Seleucidan tombs round Beit Jibrîn, which I do not remember having heard of elsewhere in Southern Palestine. I have certainly found no example among the many tombs I have examined round Jerusalem. This is the presence of special tombs meant for children. These are always niches cut in some otherwise unoccupied surface of wall. The occurrence of infants' bones in some of the specimens noticed demonstrates the purpose for which these niches were formed.

The question of the columbaria are so much involved with that of the caves that, though they should properly be considered in a chapter on tombs, they can more conveniently be discussed in connexion with the caves which form the subject of the following chapter.

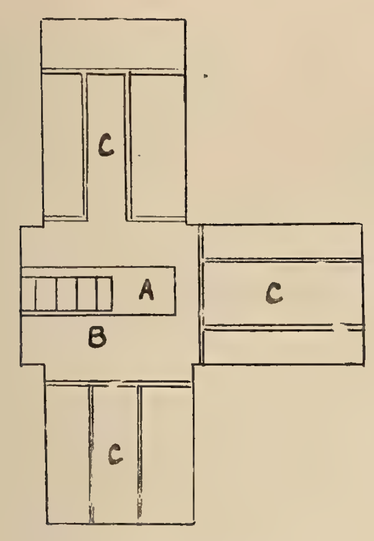


FIG. 75. NORMAL TOMB-CHAMBER, OF SELEUCIDAN PERIOD.

A. Outline of entrance shaft.
B. Vestibule.
CCC. Vaulted chambers, with three graves each.

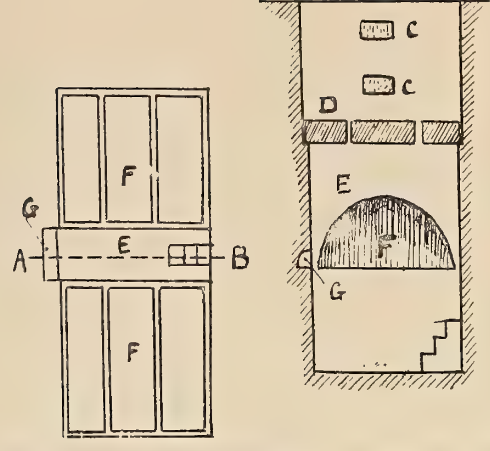


FIG. 76. PLAN AND SECTION OF TOMB WITH TWO GRAVE-CHAMBERS.

AB. Section line. CC. Footholds.
D. Slabs of stone covering entrance to vestibule.
E. Vestibule.
F. Chambers, with three graves each.
G. Infant's grave.

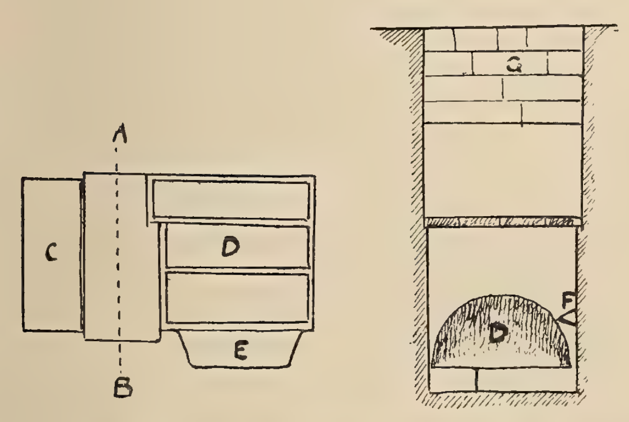
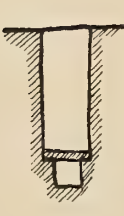


FIG. 77. PLAN AND SECTION OF TOMB WITH ONE GRAVE-CHAMBER.

AB. Section line.
C. Single grave occupying the place of a chamber.
D. Grave-chamber, with three graves.
E. Child's grave (a shelf). F. Foot-rest.
G. Masonry top to shaft.



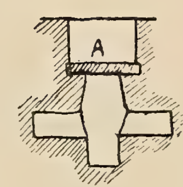


FIG. 78. VERTICAL CROSS-SECTIONS OF TOMBS (ABOUT 2 MÈTRES LONG).

1. One grave only, covered by slabs.
2. Two graves only (shelf-graves—one on each side of a very small vestibule).
A. Cover-slabs.

CHAPTER III.

CAVES.

We now approach what is at once the most important, the most extensive, and in some particulars the most perplexing branch of the subject of the rock-cuttings.

The Shephelah was at some time inhabited by people who devoted an almost incalculable amount of time and trouble to the formation of great artificial caves, some single, others multiple, in the soft chalky hill-sides. The result of this energy is concentrated, as in a nucleus, in the immediate neighbourhood of Beit Jibrîn; but even at a distance of eight or ten miles from that town, caves comparable with all but the largest in its vicinity are to be found in considerable numbers. It is difficult to give an account of the principal excavations of this type without appearing to use the language of exaggeration. The best known caves near Beit Jibrîn have been frequently visited and described; but I do not think that it has hitherto been suspected that Tell Sandaḥannah encloses under its surface more than four hundred underground chambers, some of them twelve or fifteen mètres in diameter, grouped together in about sixty sets scattered over the surface of the ground.

To attempt a descriptive catalogue of these caves would be altogether futile. The mere labour of searching the hills for examples, not to speak of the exploration of them when found, would have been almost endless; it could be completed only by a considerable party of observers who divided the district among themselves, each exploring his own section thoroughly under native guidance. It is doubtful whether such a list, when made, would be of much scientific utility; for a brief study is sufficient to show that the same type of excavation is repeated over and over again, with a monotonous regularity.

In the following account of the artificial caves of the Shephelah, based on a personal examination of at least one hundred and fifty examples and on the descriptions given by Guérin, Conder, and other explorers, of caves that I have not myself visited, I propose first to describe the various members—normal and abnormal types of chambers, passages, etc.,—without

special reference, except for illustration, to actual specimens. By this preliminary description a definite terminology will be established, with the help of which brief and at the same time intelligible descriptions of the individual caves selected for special notice can more easily be given. An examination of the evidence as to the purpose and date of the caves is reserved for the end of the chapter.

CHAMBERS.—1. In the simplest type of chamber the floor is approximately circular, and the walls are cut curving inwards, so that the space is domed or bell-shaped. In the centre of the dome is a hole, which is usually the only entrance to the chamber. This hole may be simply an aperture, or it may be prolonged into a cylindrical shaft, according to the depth at which the chamber is cut below the surface of the ground. These chambers, like all others, vary greatly in size, ranging from a height and depth of about a mètre and a half to about 10 mètres, if not more. The majority of these chambers cannot be entered without a rope, as there is no means of access provided between entrance and floor. To this class of caves I propose to give the name of *dome-entrance bell-chambers.*

2. Bell-chambers are also found having side entrances at or near the level of the floor, giving access either to the outside or to an inner extension of the system. In the former case the dome-entrance is very frequently closed, by being covered with long stones on which earth is laid, so that the existence of the hole cannot be detected from outside. There is reason to believe that this stopping of the dome-entrance is contemporary with the excavation of the chamber, and not a work of later inhabitants intended to prevent men or cattle from falling into the pits beneath. I prefer to explain the dome-entrance in such cases as merely the hole through which the quarried material was removed, and which ceased to have any practical utility when the cave was finished. This view is based on the fact that so many of the labyrinthine systems (some of which will presently be described) display dome-entrances in several of their component chambers, all of which are blocked except the particular doorway through which admission is gained to the system. There would be no reason for the modern inhabitants to block all the dome-entrances but one, as the caves for the most part are of no use to them; the remaining entrance would be as much a source of danger to them as the others, and would certainly have been closed at the same time. Besides, in cases where the modern inhabitants have actually stopped a dangerous hole, they have done so by

heaping a conspicuous pile of large stones over it, and have not attempted to conceal it.

It is not possible, without the use of rather awkward periphrases, to devise a self-explanatory system of notation for all the varieties of bell-chamber with different dispositions of entrance. The following is an attempt at a list of terms, of similar type to that already suggested :—

Dome and side entrance bell-chamber.
Dome entrance, side exit bell-chamber (*i.e.*, with side door leading to inner chambers).
Side entrance, bell-chamber (*dome entrance blocked*).
Dome double entrance bell-chamber (*i.e.*, with two openings in the roof).

Any other terms of the same class for which occasion may arise in the course of this chapter will probably require no further explanation.

3. A large number of bell-chambers exist, singly or in combination, in which access from the dome-entrance to the floor is provided by a staircase cut in the wall and running spirally down from top to bottom. The average size of these chambers appears to be rather larger than that of the bell-chambers without steps ; to this class belongs the largest single chamber (outside of the colossal excavations at Beit Jibrîn) that I have measured—a pit at Khurbet el-ʿAin, measuring over 12 mètres in diameter and 18 in depth. Such chambers I shall call *stepped bell-chambers.*

4. Stepped bell-chambers are liable to as many variations as are those without steps. We find numerous examples of side entrances and exits, which usually open off some point in the course of the staircase at a considerable distance above the floor of the chamber. The nomenclature for these variations does not differ from that already given except in the insertion of the word *stepped.* Varieties occur in the design of the steps which, with one exception, are comparatively unimportant. Thus the stairs may run regularly round the wall, or as in the Khurbet el-ʿAin example already mentioned, they may recurve on themselves. Often the flight does not run quite to the top, but stops at a height of about 3 mètres below it ; and in two curious examples at Tell Zakarîya it starts from the top, but breaks off some distance above the ground.

5. The one variation in the design of the steps just mentioned as being of importance, is, singularly enough, entirely confined to the caves of Tell

Sandaḥannah, and in them is almost universal. This local peculiarity consists in the provision of parapets, also rock-hewn, along the outer ends of the steps. It is difficult to imagine why such obvious safeguards should occur on the one hill and nowhere else; such however is the fact, so far as I can find out. These parapets are usually about 15 to 20 centimètres thick, and perhaps 75 centimètres to a mètre or more high. Their tops are stepped downwards, following the line of the staircase. In one remarkable case a staircase runs across the opening between two adjacent bells, and is provided with a parapet on each side (Pl. 101). There are above a hundred stepped bell-chambers on Tell Sandaḥannah, and I do not think there are more than a dozen in which the staircases have no parapets. I shall therefore speak of chambers displaying this peculiarity as being of the *Sandaḥannah type.*

6. While the majority of the chambers we have been describing are circular on plan or obviously meant to be so, other shapes are by no means excluded. We find stepped bells, for instance, of oval or of square plan among the Sandaḥannah caves.

7. A large number of chambers exist with approximately rectilinear plans, vertical walls, and flat roofs—like the rooms of an ordinary modern house. These chambers rarely occur independently, but are nearly always found in connexion with others. A fine example of a single chamber of this type occurs at Khurbet el-ʿAin. I shall term these *rectilinear chambers.*

8. The remaining chambers—exclusive of those designed for special purposes—are of irregular shape, that cannot be reduced to special classes. Each example must be considered independently.

9. When chambers of any of the above classes were so large in floor area that the roof required support, pillars were left here and there uncut from the solid rock to support it. In horizontal section these pillars are either square or else long flat ovals. These two types of pillars are not used at random. The square pillars are usually single, standing in the centre of the chamber, or if multiple (as in the great hall in Mughâret Sandaḥannah) are ranged in a row or grouped irregularly near the centre. The flat oval pillars are normally ranged in a rough circle, concentric with the walls of a bell-chamber, with their long sides in the circumference of the circle; so that the chamber is divided into a central space with an aisle surrounding it.

10. By the word *cell* I denote certain small chambers which usually open off, and are subsidiary to apartments of large dimensions. Cells may

be of any of the shapes described above, and are usually not more than a couple of mètres across. They may open off the sides of main chambers by doorways, or off the floor by horizontal man-holes. An *antechamber* is a cell which acts as a means of access to further extensions of the system.

The chambers that have now been described, like the bare rooms of an empty house, may have been used or intended for a variety of purposes, and there is little or no indication to enable us to discriminate between these. But several chambers remain which by some peculiarity in plan, or by the presence of special apparatus, must have been designed for a definite purpose. Of these there are five types whose explanation is fairly clear, but there are one or two others whose intention is by no means obvious.

1. Most important by reason of their superior numbers are the *columbaria*. Specimens of these exist in every group of rock-cuttings (except, I think, ʿAtraba, and possibly one or two others). There are several interesting problems involved with the columbaria, the discussion of which properly belongs to a later page: it is sufficient here to observe that columbaria are found as bell-chambers, stepped bell-chambers, or rectilinear chambers, in all their varieties; and that the loculi (usually about 20 to 30 centimètres in all dimensions) are square, triangular, oval, or round-headed, apparently at random, though usually the one design is adhered to in individual columbaria.

2. Another important group of chambers with definable purpose consists of the *olive-presses*. The simplest example of this group is found at Khurbet el-ʿAin ; here there is a series of vertical niches in the wall, divided horizontally by a perforated shelf. The olives, after being bruised by a rotary grindstone, were placed in baskets resting on this shelf, weights piled on top of them, and the oil allowed to drip into receptacles placed below the shelf.

There is, however, a much more elaborate type of olive-press, which, so far as I know, is confined to Tell Sandaḥannah. Its essential features are two standards (ss, Pl. 92), about 1 mètre in height, between which the olives were placed. A heavy beam, one end of which was inserted in a socket (z) in the wall, lay over the olives and was pressed down upon them by an arrangement of ropes and stone weights ; the ropes being passed alternately round the beam and the weights (www), and then carried over a horizontal pole (P), fixed near the ceiling of the room. Force applied to the dependent end of the rope had the effect of

pulling down the beam on the olives. The juice ran into a vat (v). In the walls at (RRR) are cut receptacles, probably refining vats. On the floor are two rotary olive mills (MM).

3. There is a another class of special chamber of great interest, also confined to the Tell Sandaḥannah group, so far as my experience goes; these may be called *filter-chambers*. They are always rectilinear, of small size, and invariably cut out with great regularity. They are always adjacent to a large bell-chamber, which must have been used as a water-store. Water was directed through a filter-chamber by a spout cut in its side, and poured into the large bell-chamber through a narrow hole connecting the two.

4 and 5. One chamber in the Sandaḥannah series has every appearance of having been meant for a *stable*, and there is at Beit Leyi a cave which was probably a Christian *chapel*. As these are the only examples of their respective classes known to me, full accounts of them are reserved for the section in which special descriptions of individual caves will be given. In the same section will be given notices of specialised chambers whose purpose cannot be assigned with certainty.

PASSAGES.—In complex systems the chambers communicate either directly (the one opening off the other by a door or manhole) or by passages of greater or less length. The relative importance of passages and chambers make it possible to divide labyrinthine caves into two classes. In the first class (which far outnumbers the second) the passages are subsidiary to the chambers, are usually short, and for the most part serve merely to connect two neighbouring rooms. In the second class, the chambers are independent cells, subordinated to one long passage or system of passages, which runs through the whole cave as streets run through a town. It may here be mentioned that the use of the word "labyrinth" may convey a false impression. The plans of the caves look complicated enough on paper, but the way through them is always straightforward, and in exploring a new cave I have never been at a loss how to advance or return—except once, in Mughâret Sandaḥannah, where one of the doorways is hidden behind an accumulation of earth, and if once lost sight of is not easily found again.

The length of passages, and the breadth and height of passages and of doorways, are capable of a very considerable range of variation. The longest passage that I measured was 29 mètres in length; but

another at ʿAtraba (where I unfortunately neglected to bring my tape-measure) I estimated, by pacing, to be nearer 35 or 36 mètres. Others are not more than three or four paces in extent. Again, some passages and doorways can easily be walked through upright — sometimes even with arms outstretched ; while others can only be crept through with considerable difficulty. A native of Deir en-Nakhkhâs told me that once he had explored a cave where a passage existed, that he found it quite impossible to get through without removing his clothing. Such an extreme case would no doubt be due to the accumulation of débris on the floor of the passage, as obviously the excavation of so narrow a creep-hole would be attended by insuperable difficulties. There are, however, many passages so narrow and awkward that the explorer is tempted to the conclusion that they were excavated, not by full-grown men, but by young boys. To the large passages, which can be passed through without any unusual position of the body, I propose to restrict the word *gallery* in the present chapter. Small passages, which require the explorer to go on all fours, I term *creeps* or *creep-passages*. The general term *passage*, like the general term *chamber*, includes all classes indifferently.

It is noteworthy that the Sandaḥannah group, which we have already seen to be distinguished from the others by several peculiar features, presents but three examples of creep-passages (one of which is of trifling importance). There are, however, several examples of galleries in the series. One of these is interesting, as it has been made to zigzag at right angles three times during its course—possibly to baffle potential pursuers. Reference must here be made to a class of passage that I have found, not in great numbers, but sufficiently often to make its peculiarity more than a mere accident. In five souterrains I have noticed passages which commence at an obscure corner of the system, and end abruptly high up in the wall of a large chamber. The doorway by which the passage enters the chamber is always inaccessible from the floor of the latter without a long ladder. This is not the place to discuss the purpose of these mysterious passages, but their existence can most conveniently be chronicled here. I term them *raised passages*.

The word *souterrain*, which has been used in the above paragraph will here be confined to caves having more than ten chambers. The two types of souterrain, which have already been discriminated, will be spoken of as the *chamber type* and the *passage type* respectively.

Details.—We have now described the chambers and passages which form the component parts of the caves; but before proceeding to special descriptions of selected examples, it will be necessary to mention certain minor features which several of the caves possess in common.

1. The walls in many cases display markings, which may be classed under the following heads:—*a.* Tool marks. *b.* Niches of various types. *c.* Marks of woodwork. *d.* Symbols (non-Christian). *e.* Symbols (Christian). *f.* Graffiti. *g.* Ornament.

a. The tool-marks are always instructive. They show the processes followed in excavating the chambers; sometimes also the order in which chambers were cut out; and give much valuable information on the nature of the tools employed. It is just possible that wooden tools were used in some of the caves, but the great majority of the tool-marks to be observed cannot have been made except by metal chisels.

b. Every chamber not directly communicating with the open air is of course almost or entirely dark; and if they were to be used for any purpose it was necessary to provide lights. These were placed in small triangular niches, one or more of which are found in almost every chamber and passage that exist. In some cases, however, the irregular disposition of the niches, and their inaccessibility from the floor of the chamber, show that they were probably rather made by the original workmen who quarried out the cave and who, as they descended, cut new niches from time to time in order to bring the light nearer to their operations. The workmen in our own excavations followed a practice which offers an exact analogy. As a shaft or clearance pit was deepened, they constantly cut small niches in its walls, not for lights, but for the safe keeping of small antiquities which they guessed to be of special value.

There are however other niches whose purpose is not so easily explained. One very common type is that which I term *pommel niche.* This is shaped above like the ordinary light-niche, but the floor instead of being flat or slightly concave as in the light-niche, rises to a blunt point resembling the pommel of a saddle. These niches often occur in considerable numbers. In one large cave in a hill neighbouring to Tell Sandaḥannah on its eastern side, there is a row of eight of them, side by side. Another type of niche may be termed the *bridged niche;* here a hollow is cut on each side of, and behind, a small bar of rock, so that we have an oblong hollow with a bridge across it, not unlike the thwart of a boat. The bridge may

be vertical or horizontal. The purpose of the latter type of niche is less difficult to assign than that of the former; it was most probably for reaving a cord by which some object was secured. Indeed once or twice I have noticed the bridge slightly cut as though by the continual friction of the string. In some caves *double niches*, as they may be termed, are to be found. These resemble large light-niches, but differ from them in having two hollow cups sunk side by side in the floor. It is possible, but not likely, that they were intended for two lamps. No other suggestion occurs to me, as the cups are too small to make them of any use in storing any objects that had to be kept separate and that were likely to be in the possession of the original users of the caves.

c. In three caves I found unquestionable evidence that wooden structures —scaffolding or partitions—had at some time been erected inside them. Two of these are noticed among the special descriptions; the third is not of great importance. The wood has of course disappeared, and the only evidences of its existence remaining are the chase-mortices and sockets by which the beams were placed and held in position.

Under this head may also be mentioned the various bolt-holes and other evidences of fastenings which remain in the jambs of doorways.

d. The important souterrain at Zakarîya shows two peculiar marks which may be symbols of some sort; and the great stepped bell-chamber at Khurbet el-ʿAin has a swastika surrounded by a spiral, and another mark. These are all noticed in the special descriptions. Prof. Clermont-Ganneau mentions a peculiar symbol on the wall of ʿArâḳ Abu 'l ʿAmed, near Beit Leyi. I have not seen this, and have no information on its nature.

e. Christian symbols are of frequent occurrence, and, like the columbaria, are involved in interesting and difficult problems, to which reference will be made later. They are usually crosses of various types; but in two caves (one at Tell Sandaḥannah and the other the famous ʿArâḳ el-Mâ at Beit Jibrîn) we find figures with outstretched arms, which may be rude attempts at crucifixes, or may be representations of *orantes* such as are found in the Catacombs. Besides these, there is a Virgin and Child (?) at Beit Leyi, and possibly another elsewhere—if any credence is to be placed in the rumour current in the neighbourhood there is somewhere in these caves (no one can say where) a figure of a woman with a child in her arms.

f. Graffiti are found in the Zakarîya souterrain and the "Suḳ" at Tell Sandaḥannah (Greek) and in several caves near Beit Jibrîn (Kufic). As a

graffito may also be counted a rude human figure at the entrance of one of the Sandaḥannah caves. I have no faith in the "Georgian" inscription alleged to exist somewhere.

g. Out of all the one hundred and fifty caves I have seen, and the others whose descriptions I have read, I find ornaments in one only—the well-known friezes in ʿArâḳ el-Kheil. Of this ornament I shall have something to say later.

2. Certain caves show *stoups* and *vats* of various sizes cut in the rock, which may well have been used to hold grain or similar stores.

3. In a very few instances, beside the doors of communication there are square *windows* cut in the rock wall between two chambers.

4. An interesting fact which here deserves notice is the occasional connection of caves and cup-marks. I have noticed this especially at Zakarîya and Sandaḥannah: beside the mouths of several caves at both places are to be seen single cups cut in the rock-surface. The connexion may of course be entirely fortuitous, but I think I am right in saying that at the latter place there is no example of a cup mark above ground not immediately associated with the mouth of a cave. This it must be admitted is not the case at Zakarîya.

5. The presence of water-grooves round the tops of doorways of caves has been noticed in at least two instances. This groove was of course meant to catch water that, during the rainy season, fell on the sloping face of rock above the doorway, and to convey it away so that it should not enter the cave. A similar groove has been cut by the modern inhabitants round the mouth of a cave at Khurbet el-ʿAin, which is now used as a shelter for cattle.

6. An interesting and important detail—again a peculiarity of the Sandaḥannah caves—must here be mentioned. This is the use of masonry in connexion with the excavated passages and chambers. The masonry always consists of well squared blocks of limestone; and is applied to the roofing of passages and chambers near the upper surface of the rock, when the excavators considered that there was not sufficient thickness of rock to support the superincumbent earth. It is highly important to notice that in all cases but one these masonry roofs are built with a true arch, having radiating voussoirs. The one exception to this is a false dome (of oversailing horizontal courses), which is used to close a roof entrance in the inner chamber of one of the souterrains.

Special Descriptions.—(*I.*) *Tell Zakarîya.* There are numerous

examples of caves, but for the most part of small extent. There is only one souterrain, and few besides contain more than one chamber.

The caves which call for special notice are as follows :—

1. Under 13 feet of débris and immediately covered by a jar that, among other objects, contained a scarab of Tahutmes III, was found the entrance to a bell-chamber, oval on plan : the long axis (west by north and east by south) 3·60 mètres long, the cross axis 2·96 mètres. The height of the chamber is 2·30 mètres. An entrance, oval on plan, 1·52 mètre long, 60 centimètres across and 1·18 mètre in depth, gives access to it. A flight

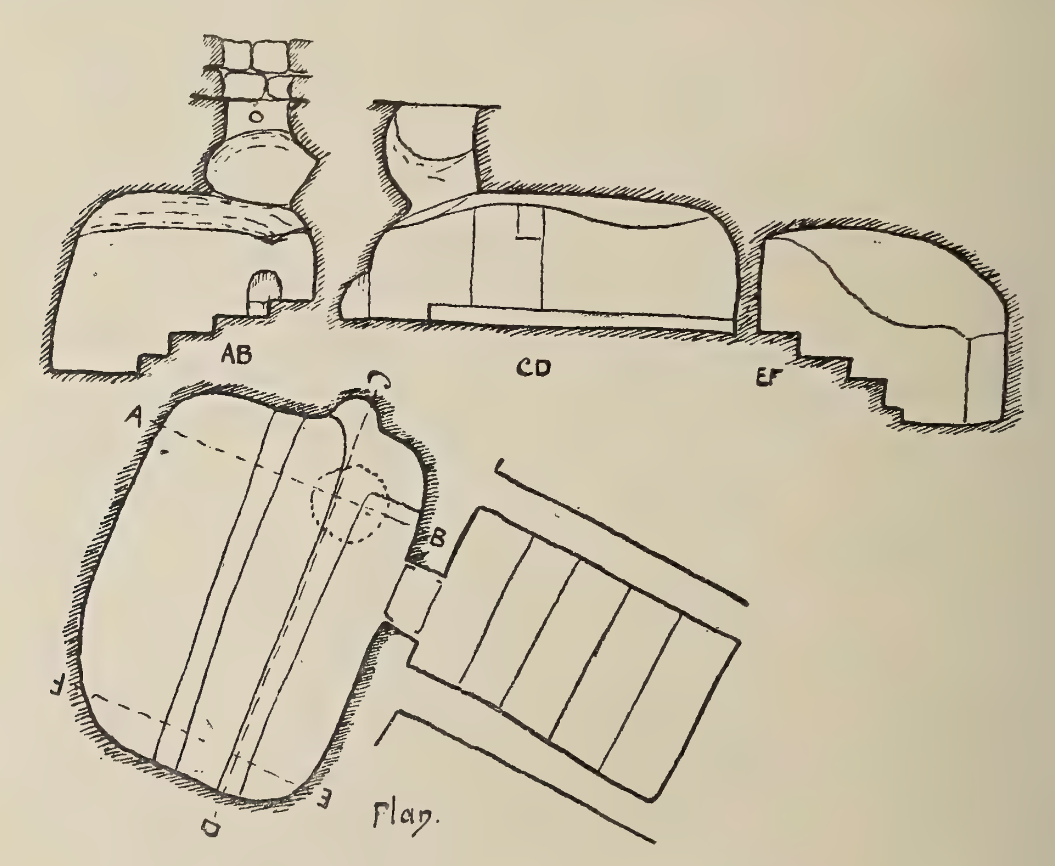


FIG. 79. PLAN AND SECTIONS OF NO. 2.

of steps, five in number, runs down the northern side of the entrance to within 5 ft. 8 ins. of the floor of the chamber. There are traces of plaster on the east and on the south sides. Inside it were found two large jars, placed lying on the floor ; these were empty. There was also a number of discs of

limestone, circular, and perforated in the centre like millstones. They were about 60 centimètres in diameter (Pl. 93*).

2. A chamber, oval on plan, the long axis trending about N.N.E. and S.S.W. The floor descends by five steps of irregular size. The entrance is a cylindrical shaft close to the N.E. corner: the rock is cut inwards on the eastern side of this shaft. Close to the top of the rock is a bolt-hole, 6 inches deep, 4 inches in diameter. The walls of the chamber are covered with plaster. A doorway (walled up) communicated with the stepped and vaulted cistern that has already been described in its proper place. Dimensions: length 5·79 mètres (not including a small apse-like recess, 45 centimètres deep, at the northern end); breadth 4·42 mètres, depth 2·89 mètres (not including the shaft, which is 1·37 mètre and about 1·83 mètre in masonry). That this cutting was a cistern is shown by its connexion with a stepped cistern, and by the plastered wall, which displayed waterlines at various levels, and a deep sedimentary line at the bottom. The cutting is now closed up.



FIG. 80.
PLAN AND SECTION OF NO. 3.

3. An oblique shaft driven into the rock, descended by eight steps (found in a clearance in the middle of the fortress on the hill-top). A small hole broken through the bottom, which is of very soft limestone, showed earth below; and judging from the position and direction of the cutting, it would appear to have broken into a neighbouring cistern, and, when this happened, to have been abandoned. The shaft has a thin coat of plaster.



FIG. 81. PLAN AND SECTION OF NO. 4.

4. A well-cut entrance, breaking into a large natural hollow in the rock; probably this also is an unfinished excavation abandoned because of the existence of the hollow. This was found close beside 3. These were probably both shafts of projected cisterns.

5. A dome double-entrance bell-chamber, rather over 5 mètres deep.† As not infrequently occurs, one of the dome-entrances is large and lozenge-

* The number "II" in the heading to this plate refers to the list of Zakarîya rock-cuttings (*Q.S.*, 1899, pp. 28–35).

† When, as in the majority of cases, the floors of bell-chambers are covered with débris fallen through the entrance, "depth" always denotes "present depth."

shaped (more usually it is rectangular), the other is small and circular. This is a columbarium, there being six rows of loculi: it is remarkable that the third row from the top consists of triangular loculi, the others being square. There is a large stone trough close to the entrance, which seems to indicate that this chamber was at one time used as a cistern.

6. A dome and side entrance stepped bell-chamber. The steps stop short 3 mètres of the side entrance, which is near the top. At the foot of the stairs is the entrance to a gallery, but it runs inwards for about a mètre and a half only, when it stops abruptly: there is a manhole in its roof, which seems to have been intended to serve as an entrance to a projected extension of the system, but which apparently broke out of the rock into the overlying earth instead: the space above the manhole is full of earth and cannot be entered. This excavation is of considerable importance, as the existence of a gallery at the bottom shows that these stepped bell-chambers were not all originally intended for cisterns.

7. This is a good, though small, example of a composite cave of the passage type. It does not contain a sufficient number of chambers to class it with souterrains. It consists of a deep passage, 53 centimètres high at the entrance, running obliquely into the hill for a considerable distance. It is very difficult to explore, and the side chambers cannot be entered, owing to the accumulation of débris within it. It ends in a fairly large chamber, nearly full of earth.

8. A large circular cave (not a bell) 10 mètres in diameter, 1·67 mètre high. The roof is supported in the centre by a pillar, approximately rectangular in section, measuring 1·52 by 1·22 mètre in cross dimensions. There is a shelf or step, 1·80 mètre long and 90 centimètres wide, at the inner end. Round the door outside is a water groove.

9. This is an interesting columbarium of several chambers. The principal chamber seems originally to have been a rather small dome-entrance bell, 7·77 mètres in diameter and about 3·65 mètres high. The original entrance is now blocked, and a door broken in the side, which, as it interferes with three rows of loculi, must be regarded as of later date. This door leads to the open air through a small domed antechamber, about 2·40 mètres in diameter. Opposite the door is an irregular hole raised some distance from the floor, which gives admission to another chamber, nearly half full of earth. Beside it is a third chamber which communicates with its neighbour by a wide doorway, and with the

principal chamber by an extremely awkward opening about 37 centimètres across, set in a sloping wall of rock close to the floor. This opening can hardly be considered as practicable. In the hope that something might be found to give a clue to the date of the columbarium, I had some of the earth in the second chamber cleared out. Many sherds of Roman pottery were found, but nothing else; a doorway was uncovered leading to a previously unsuspected chamber at the back, which had also been pitted with loculi, and was also quite empty.

10. The next cave which merits our attention in the order in which we are taking the rock-cuttings (*i.e.*, starting from the S.E. and proceeding round the hill, east, north, and west), is the one example on the hill of a souterrain in the restricted sense already defined. I have given a complete description of this great work in *Q.S.*, 1900, pp. 39–53, to which reference should be made for the complete measurements and minor details. The following abstract deals only with the general features.

The entrance to this cutting is on the shoulder of the hill, just below the level of the summit plateau, at the north-eastern angle of the Tell. The rock is a soft chalky limestone, very easily worked, and overlaid by a harder stratum which lies immediately under the vegetable soil, and in the neighbourhood of the entrance crops out to the surface.

The principle which I have adopted in numbering for reference the various chambers and passages will be seen from the plan (Pl. 94). There are two large apartments, from which various systems of chambers radiate; these I have called respectively the "Outer" and "Inner Central Chamber" (lettered O.C.C. and I.C.C. on the plan). From the first lead off three systems, denoted by the index letters A, B, and E. A is the group first entered by a visitor. From the second there lead off eight exits; a shaft (now blocked) originally leading to the ground level; the entrances to the inner ends of systems B and E; entrances to other systems indexed C, F, G; and two passages, both blocked, which are close together, and which it is convenient to treat as one system, lettered D. Beyond F, at the extreme end of the series, is another system, lettered H. These systems are all independent of one another with the exception cf B and E, and F and G, each of which pairs have a chamber in common. These common chambers are denoted respectively BE and FG; the remaining apartments and passages are distinguished by the index letter of the system to which they belong and a number (chambers) or a letter (passages). I have endeavoured, by the use of cross-hatching, to denote chambers on lower levels. The floor level of the Inner Central Chamber has been taken as a datum, and marked by a thick black line on all the sections (Pl. 95).

The southern end of system A was perhaps a natural cave, which formed the nucleus of the excavation. In the floor of A 2 are two circular holes, each communicating downward with a small dome-shaped cell, numbered A 3 and A 4. In the floor of A 3 is an opening, giving access to a miniature cell (Pl. 96, fig. 1). Above A 4 is one of the many shafts which formerly led upwards from all the large rooms to the surface of the ground. Some (such as H *b*) were certainly ancient approaches to the excavation, but others were probably merely openings made for convenience in removing the stone in quarrying out the apartment. All (except that from

A 8, which is now the most convenient approach to the souterrain) are blocked with large stones and turfed over. The two columns in A 6 are buried nearly to their tops in the fine dust to which the chalky limestone has disintegrated.

A 7 is chiefly remarkable for a peculiar symbol cut in the wall at the entrance to the passage leading to A 15, at the left of the door (Pl. 96, fig. 2, i); A 8 is reached through a circular hole in its floor (Pl. 95, xii). Two doorways, both now blocked, apparently communicating with the outer air, probably formed the original entrance; the present entrance being most likely intended as a means of access from this chamber to the more remote apartments of the system. Beside the hole is lying a stone which probably was intended as a stopper. Of the two blocked doorways, that nearer the present entrance leads into a passage trending upwards: the other leads into a small domed cell. A study of the marks made by the rather narrow chisel with which this chamber was cut out appears to indicate that the passage was made first from without and expanded into the chamber; the domed cell was formed independently, and the communication afterwards broken through. There are two small niches in the wall of this chamber.

At the inner end of the passage A *b*, is a niche on the right hand side, with a rude boss-like shelf. The maximum length of A 10 is about 4·25 mètres. The tops of the walls have been cut away (Pl. 95, xiv). The hard stratum of rock forms the roof. A 12 is remarkable for being covered with a rough grey sandy plaster. A 13, 14 and 15 are extremely small cells from 1·20 to 1·50 mètre across. The passage A *d* runs inwards and upwards, but is carefully blocked at about 1·50 mètre from its end with large stones.

The twin chambers, A 16, 17, are remarkably well cut, smooth sided, domed chambers. A 17 has about 20 small niches cut in the sides. Above these chambers runs a passage, A *c*, of some interest; it enters the wall above the level of the entrance to A 16, and runs in a north-westerly direction for about 1·80 mètre. There are two bolt-holes just inside the entrance, one of which is provided with a chase or groove along which the end of the bolt is conducted to the hole. The chase is in the inner side of the bolt-hole: that there was no door, but merely the barrier provided by the bolts, is indicated by the absence of a reveal. There is a further slight bend to the west in the direction of the passage, after which it runs 3·05 mètres; just at the bend is a curved bay on the west side of the passage, in the floor of which is the circular hole communicating with the roof of A 16. The hole is well-cut, with a reveal to hold a stopper. The hole communicating with A 17 is similar in character. Between the two are indications, in the walls of the passage, of a second barrier—on one side is a bolt-hole, on the other a vertical chase-mortice. Beyond the second well-hole the passage bifurcates, but both branches are blocked. The left hand branch shows indications of a third barrier, with a chase directed towards the free end of the passage.

The maximum diameter of the Outer Central Chamber is 6·32 mètres. The walls retain fragments of plaster indented with meandering lines, perhaps meant as a key to hold an outer coat of plaster, which has now disappeared. They seem to have been traced with a blunt notched stick in the plaster when fresh. A specimen is shown (Pl. 96, fig. 3). On the south wall below the shaft is cut a mark of similar type to the triangular figure in A 7 (Pl. 96, fig. 2, ii); over the entrance to System B an unintelligible series of scratches is marked on the wall. There are about 25 small niches scattered irregularly over the walls of this chamber. There are three exits: one to System A, another to B, and the third to E.

A passage from the Outer Central Chamber meets the main gallery of System B at right angles. The main gallery runs north and south from the end of this passage, but the southern portion extends for 3 feet only. At the intersection is a circular well-hole that gives access

to a small domed cell B 1, which in its turn gives admission to B 2, the largest chamber in the souterrain, the maximum diameter of which is 9·24 mètres. The entrance from B 1 is 1·37 centimètre above the present level of the débris on the floor of B 2; a niche has been cut below its sill to serve as a foothold. B 2 has been cut out by irregular strokes of a rather wide-edged pick, and there were two shafts communicating upwards, that in the centre being of unusual size.

In the main gallery, B *a*, a second well-hole gives access to B 3, another domed cell. The opening, like others we have already found, is revealed for a stopper. A groove is cut between the reveal and the edge of the step in which is the well-hole, no doubt to facilitate raising the stopper, the top of which must have been flush with the surrounding floor (*see* Pl. 96, fig. 4). At the point where this well-hole is found the gallery bends through nearly a right angle, and rises by a series of steps to its destination. Close to the end of the gallery, on the left hand side, is a domed semicircular recess, B 4, in the floor of which is a hemispherical cup-shaped hollow 15 centimètres deep; close by is a smaller hole resembling a socket for receiving the spindle of a turning door. The jambs of the entrance at the end of the gallery have notches cut out of them (Pl. 96, fig. 5) which are difficult to explain, unless they were in some way intended to secure the woodwork of a door frame. The maximum height of this passage, B *a*, at the southern end is 1 mètre. The roof is cut in a barrel shape. B 4 contains a well-hole, giving access to the small cell B E. Close by the door from the gallery is an entrance, which admits to a passage 5·33 mètres long; this ends abruptly in the side of the shaft above the middle of B 2, and thus is an example of the perplexing "raised passages." B E is a tiny domed cell, the floor of which is much cumbered with débris.

The Inner Central Chamber is an irregular quadrilateral with one angle not cut out, about 5·45 mètres long and 3 mètres across. A projecting mass of rock has been left uncut in the centre of the northern side, and to the west of this is a cylindrical depression in the floor. The hard covering stratum of rock, referred to at the outset, forms the roof of this chamber; the ceiling is therefore irregular and shows no pick-marks, but the walls show that the room was worked out with a narrow chisel, except in the blocked passage leading from the north-east corner, which was at least finished off with a 5-centimètre chisel. Several niches are cut in the walls. There is some grey plaster still remaining all round the walls to a height of 18 centimètres from the floor.

Just inside the door from B 5, in the floor of the Inner Central Chamber, is a well-hole which gives access to a domed chamber C 1. This chamber has been cut out very smooth with a fine 95-millimètre chisel, and its walls have been smoothed down with a wooden comb or drag. I have not observed marks of this process elsewhere in the excavation. Two passages lead from the south-west of the Inner Central Chamber, one above the other. The destination of neither is known. D *a*, the upper, runs inward for 1 mètre and then turns through a right angle; it probably led to the surface. D *b* is sunk a few centimètres below the level of the floor of the Inner Central Chamber. It runs parallel with D *a* for about 5 mètres, and then joins a gallery proceeding from System F, which is partly blocked with earth.

Returning to the Outer Central Chamber, we enter E by the doorway already indicated. A short passage leads to a small domed cell, in the centre of the floor of which is a well-hole. This passage displays narrow chisel marks in its walls. On the right side (going in) is a row of niches, and there is also one niche on the left. The well-hole just-mentioned gives access downward to a small-domed chamber of the usual type. This cell, E 3, communicates with E 2, an irregular rectangular chamber with re-entrant angles, and much choked with earth. Near the entrance of E 2 is an oval niche in the wall, 61 centimètres high, 25 centimètres deep, the lower

part containing a hole 20 centimètres deeper (*see* Pl. 96, fig. 9). In the side opposite the entrance from E 1 is a doorway, which, by means of a winding passage, communicates with BE. This passage has been cut with short, sharp strokes of a pick; the direction of the marks show that it was cut from BE towards E 2. E 1 is a domed cell full of rubbish; it communicates with E 2 by a small and very awkward circular doorway, and by a well-hole with the Inner Central Chamber.

The passage F *a* originally ran north as well as south of the entrance by which it communicates with the Inner Central Chamber, but the northern arm is now blocked immediately inside the doorway. Proceeding along the southern arm, we notice on the right, among a number of wall niches of the usual shape, a curious mark recalling those in A 7 and the Outer Central Chamber (Pl. 96, fig. 2, iii).

F 1 is chiefly remarkable for a graffito on its eastern wall, above the entrance to FG.

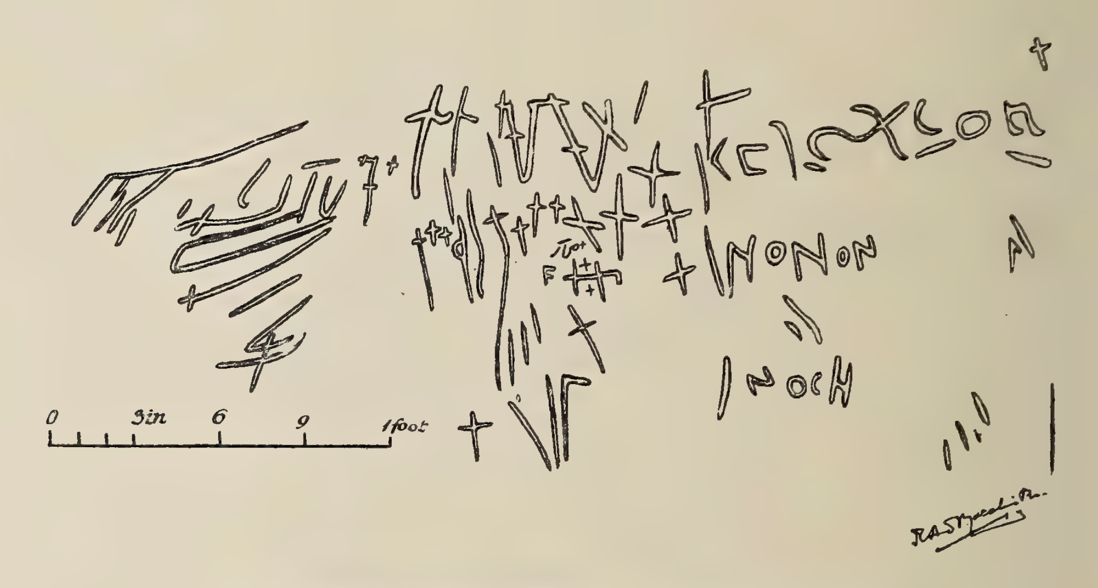


FIG. 82. GRAFFITO IN THE CHAMBER F 1 OF THE GREAT SOUTERRAIN.

From the annexed copy of this graffito (reduced from a rubbing by the method of squares) it will be seen to consist of rude crosses and some lettering. I can make nothing of the latter except the abbreviation **K͞C I͞C X͞C**, obvious in the top line. **INONON** has a cabalistic ring, suggestive of Gnosticism; I suspect, however, that several letters have been lost by the wear of the soft limestone, which is very friable, and can be scratched with the finger nail. The south side of the chamber is also covered with scribbling, but the marks are quite indefinite. This graffito testifies to a Christian occupation of the souterrain.

F 2 is a domed cell, entered by a well-hole in the floor of F 1, which is provided in the mouth with shallow bolt-holes by which a stopper can be secured. F 3, 4 are twin chambers resembling A 16 and 17 in general appearance, though larger and not so neatly worked. Each had a shaft communicating with the surface, in addition to which there are remains of a

much-ruined flight of stairs running from the ground level to a lobby above the communication between the chambers (Pl. 95, section VII). On the jambs of the opening from this staircase to F 4 are cut squares containing dots (Pl. 96, fig. 6 ; "left" and "right" in the plate refer to the hands of a spectator facing chamber F 4).

F G is entered by a very small doorway leading out of a lobby sunk below the level of the floor of F 1. A well-hole bevelled to hold the stopper, admits from the Inner Central Chamber to G 1, an irregular chamber about 2·45 by 1·20 mètre. It has several niches in the walls, one of them of large size. Besides a small opening to F G, it has two entrances to G 2, one of them a round-topped doorway, the other a round hole. This chamber has all been cut out with a 1·25-centimètre chisel, but a 2·50-centimètre chisel has been used in finishing off the doorways and the angle between the wall and the roof on one side. G 2 has also been cut out with a 1·25-centimètre chisel. There are five niches in its sides. Entrance to G 3 is obtained by a passage sunk below the floor level of G 2 and partly contained within its area. This chamber was cut out with long vertical strokes of a blunt rounded pick ; the ceiling shows marks of a fine chisel held edgeways and struck with short, sharp strokes. The door has a rounded top. A passage leading northwards from F 1 runs for 2·75 mètres, and then strikes another at right angles. To the left this latter passage, which led upwards, is now blocked ; to the right it enters H 1. An entrance to unknown parts of the souterrain can be seen by looking through a crevice between the wall of the passage and the block that renders it impassable. The direction of the pick-mark shows that the passage was cut from the blocked end towards the two systems, which it unites.

H 1 2, form another pair of twin chambers of the type of A 16, 17. Each communicated with the surface: H 1 by two of the ordinary roof shafts (one of which shows marks of weathering and has footholds cut in its sides), and H 2 by a passage, now blocked with stones. H 2 is a fine chamber, about 4·85 mètres across, the pick-marks in the sides of which have been carefully disposed so as to form horizontal rings of oblique strokes (*see* Pl. 96, fig. 7). The same technique appears in some of the bell-shaped cuttings with staircases in other parts of the Tell, but is not found elsewhere in the Great Souterrain.

H 3 is raised about 2·43 mètres above the level of H 2. It has two means of approach— a round hole cut in the walls between it and H 2, showing evidence of wear in its lower edge ; and an awkward passage starting from H 1 and running behind the wall of H 2. This passage from its first half rises, then expands into a small shell, after which it falls into H 3 Section II, Pl. 95, illustrates it fully, and shows the row of small niches on one side. The circular door in the middle of the gallery admits to a passage that led outwards, but is blocked. H 3 has been worked with two chisels, one 2·50 centimètres, the other 3·80 centimètres broad. Near the entrance both are used together, but towards the inside the largest chisel was the most used. A flight of steps runs downwards from H 3 to H 4, a roughly rectangular chamber. A small pick has been used except in the recess opposite the steps, which was formed with a 4·40-centimètre chisel. The steps were made with a very fine edged tool held sideways. H 5 communicates with H 3 by a passage: the floor of the chamber is 62 centimètres below that of the passage. In each angle of the floor is a saucer-shaped depression. The walls of this room have been finished with a little blunt cylindrical pick, with which instrument (held vertically to the wall) many of the niches have been formed elsewhere in the souterrain. There is one niche in the south wall, and a foothold, worn by treading, cut beneath the entrance. Along the north side of the passage is a row of four niches.

Returning now to H 2, we proceed along the passage H *d*. At its end is a chamber, apparently a natural fissure in the rock, from its irregularity and the absence of pick-marks. On the right hand side of the passage is a bay, in the floor of which is a well-hole

beside the hole is lying the original stopper—an irregular stone with a rough projection on one side that just fills the well-hole. This hole gives access to a cell 1·72 mètre high. Two niches are cut as footholds in its side. In the centre of its floor is a rectangular depression, in the middle of which is another well-hole, leading to a lower cell, 1·47 mètre high. The walls of this cell are carefully chiselled smooth. From the upper cell two passages radiate: one is blocked with earth; there is a row of five niches in its right hand wall. Over the entrance are three small grooves resembling the rope marks at the mouth of a well. The other leads down to an extremely small chamber, 91 centimètres across and 83 centimètres high, formed with large widely-spaced chisel cuts, and finished with a finer tool.

Locally this souterrain is known as the محمة, *miḥmah*, a word, I suppose, to be somehow connected with the root حمي, "to be hot." The name tells us nothing of the origin of the excavation, and on this subject the fellaḥîn profess complete ignorance.

11. A dome-and-side entrance stepped bell-chamber. The height is 9·15 mètres, the diameter 8·22. The side entrance opens by a short

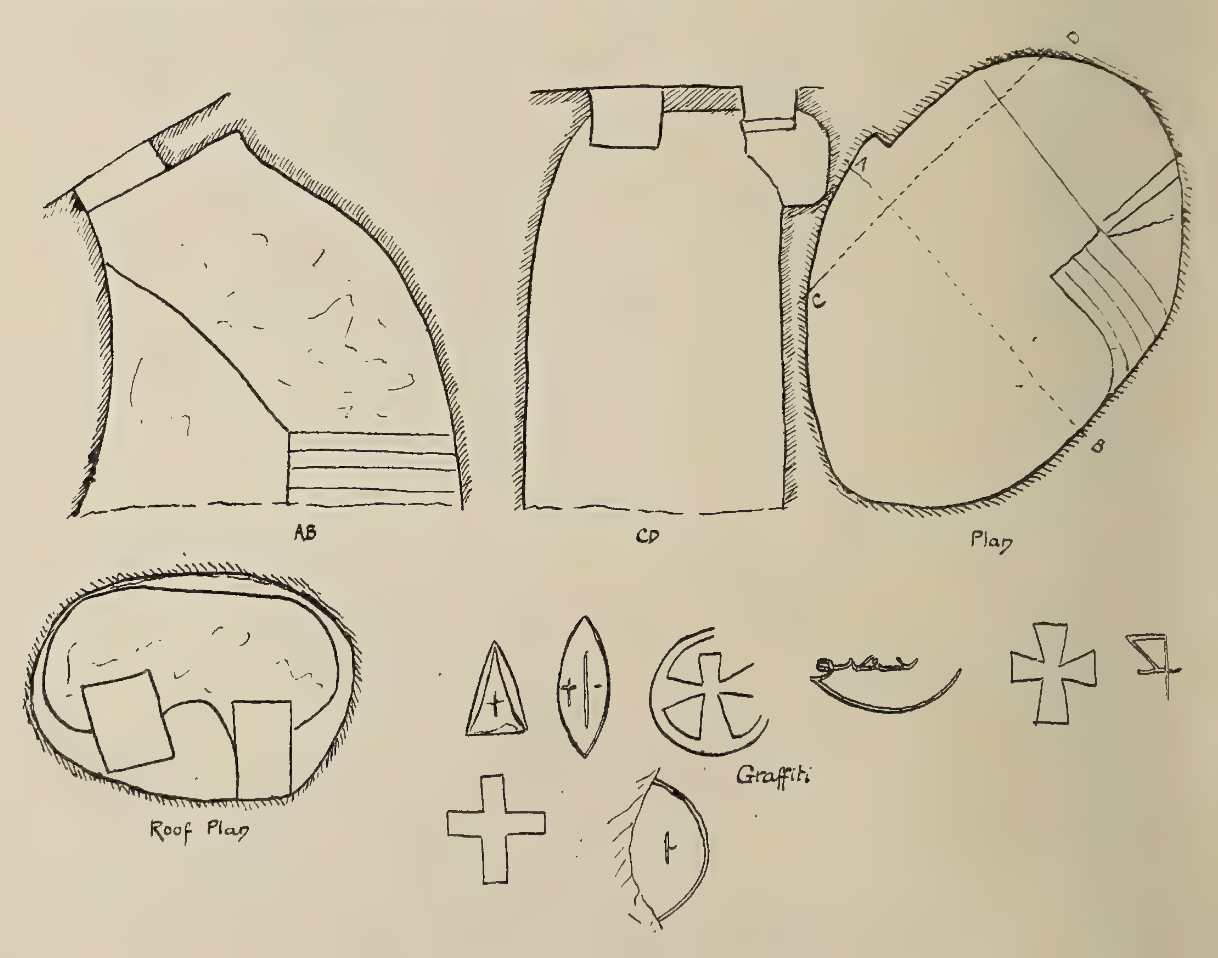


FIG. 83. STEPPED BELL-CHAMBER WITH CROSSES AND GRAFFITI: TELL ZAKARÎYA.

passage on the staircase, and the latter is broken above the level of the end of the passage. In the side of the bell, at a height of about 2·50 mètres above the floor, is cut a short flight of steps giving access to three creep-passages, all of which are short and end in small bell-shaped cells. Below the level of these is a hole in the wall, inaccessible without a ladder, which is possibly the end of one of the peculiar passages that have already been described: *i.e.*, those ending in an inaccessible point on the wall of a large chamber. From beside the foot of the main staircase a passage, impracticable owing to the accumulation of earth within it, and in any case most awkwardly situated, leads into the rock. I was unable to explore it. There is also a small L-shaped creep-passage, which ends abruptly, and a shallow square niche that looks as though it might have been meant for holding an inscribed tablet. Beside the mouth of the impracticable passage already mentioned is a cupboard, revealed for a movable door; it is of similar shape to, but rather larger than, a loculus in an ordinary columbarium.

The remaining caves at Tell Zakarîya are of ordinary pattern, and do not require special notice in this place. I communicated a complete list of them, so far as they were known to me at the time, to the *Quarterly Statement* of January, 1899. I afterwards found two or three others which, however, add nothing to our knowledge on the subject. One (fig. 83, p. 222) is interesting for the number of crosses, as well as an illegible Kufic graffito, which it contains.

(II). *Tell eṣ-Ṣâfi.* These caves are unimportant, and call for no detailed description. They are few in number and normal in type. There are no souterrains. One chamber deserves mention on account of its great size, which I estimated, by pacing, to be about 18 mètres in length and 6 in breadth. The height also is about 6 mètres.

(III). *Tell ej-Judeideh.* There are no caves of special interest.

(IV). *Khurbet ed-Druseh.* 12. A fine pair of bell-chambers, communicating with one another, deserves mention, as one is pitted all over with columbarium loculi and the other is perfectly plain.

(V). *Khurbet Medawwir.* This hill has several caves, which cannot, however, compete in interest with the fascinating series at Khurbet el-ʿAin, the next hill to the south. Two deserve mention, namely:—

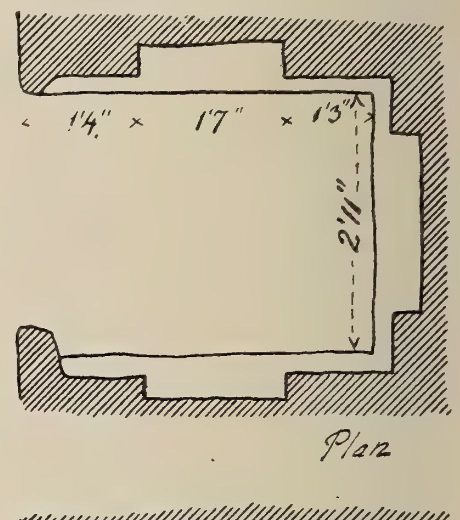
13. A pair of bell-chambers, much ruined. Traces remain showing that this cave was at one time covered with plaster, containing large

sherds of unquestionably Roman pottery. On one of the fragments of plaster that remain is scratched a rude plain cross with bifid ends.

14. This is a large system, though not particularly interesting. Its chief feature is what appears to have been an open circular court in the centre, from which the doorways and passages to other chambers radiate.

(VI). *Khurbet el-ʿAin.* On this hill is a series of rock-cuttings which yield to none in interest or variety. There are some pits of the common bell-shaped type, a few columbaria, rock-cut graves, and tomb chambers with kokîm, none of which, excepting the following examples, call for special notice :—

15. At the foot of the hill, close to the ruins of the alleged *ʿain,* or fountain, from which this hill takes its name. From the accompanying plan and section it will be seen that this chamber is laid out on the scheme of a common type of rock-cut tomb containing three arcosolia. But the dimensions are too small to allow us to regard it as serving any such purpose. They can best be realised from the facts that there is hardly space enough in the room to allow a man to turn, and that the benches will not receive the body of anything larger than a rabbit. I am quite unable to suggest any possible use for this chamber.



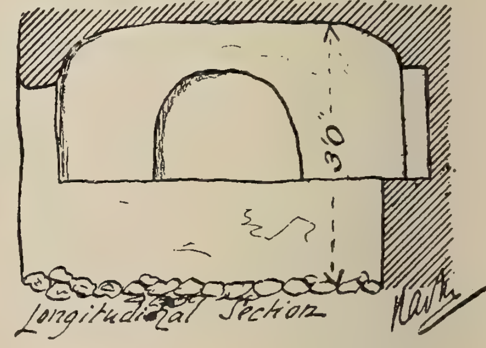


FIG. 84. PLAN AND SECTION OF NO. 15.

16. This is about half way up the hill, on the Wâdy ej-Judeideh side. The sketch (Pl. 97) shows it to be a bell-shaped chamber of the ordinary pattern: it is, however, distinguished by its great size from all others of its class that I have seen. The depth is 18 mètres, and the diameter at the bottom is 12·19. The plan is D-shaped, the two upper flights of the staircase being on the straight side of the D. Between the two upper flights is a vertical drop of about 1·80 mètre. The sketch displays the general roughness and irregularity of these steps. The central portion of the curve of the D is

treated like an apse, being vaulted over at a height about 4·50 mètres below the entrance to the pit. (The under surface of this vault is represented by heavy shading.)

In the vertical face above the middle flight of the staircase will be noticed an arched hole. This has every appearance of being the entrance to a passage: but without a long ladder it is inaccessible. There is a double row of foot and hand holes cut in the rock above it, leading to the edge of the landing at the head of the staircase. The rock being everywhere slippery, with a green mouldy deposit, it would now be impracticable to descend by means of these holes. I have searched for another exit for this passage in all the neighbouring caves, but in vain; and as it would obviously be next to, if not quite, impossible to cut the footholds in question from above downwards, the passage probably leads to some chamber which at one time had an independent entrance now concealed.

There are evidences pointing to at least two, probably three, periods of occupation. First, I would draw attention to two symbols scratched high up on the wall above the foot of the upper flight of stairs (Pl. 97, fig. 3). They are not accessible, so I was compelled to prepare the figure from two careful eye-copies made on different days from the original. Of the two symbols, the smaller is an uncharacteristic ornament; the larger, however, is of singular interest. It is a swastika, or rather (as the angles are more or less curved) a tetraskelion, one arm of which connects with a surrounding spiral. Apart from its use in mediæval Christian art, and (in the form of the "Greek Fret" and its derivatives) in classic or Byzantine ornament, this is, I believe, the first example of the swastika found in Palestine. It would, of course, be premature to build any theory on this single occurrence of the famous and almost universal solar symbol among the caves of the Shephelah: but it will unquestionably prove to be of importance should other evidence be forthcoming to negative the commonly received theory that these excavations are of comparatively recent origin.

If the swastika and spiral be accepted as sufficient evidence of a heathen occupation of this pit—which, without other evidence that cannot as yet be discussed, is, perhaps, not to be expected—the second period of occupation that has left its mark on the walls is that of the Christians. There are five crosses scattered over the sides of the pit. The most remarkable is a fine cross *pattée*, contained in a sunk panel in the middle of the "apse" wall, about 30 feet above the level of the ground (Pl. 97, fig. 4). Beside this

is a plain cross, faintly cut, that can be detected with a telescope only. There are also a small cross, deeply cut, with slightly expanding ends, on the wall to the right hand facing inward from the staircase, and two crosses with bifid ends, one (Pl. 97, fig. 1) near the head of the second flight of stairs, the other (Pl. 97, fig. 2) close to the ground, under the large cross.

To a still later period must belong the adaptation of this cutting as a columbarium. For it will be seen that the last two crosses in the above enumeration have been interfered with by the encroachment of loculi; and as there was plenty of room elsewhere on the walls for loculi, we

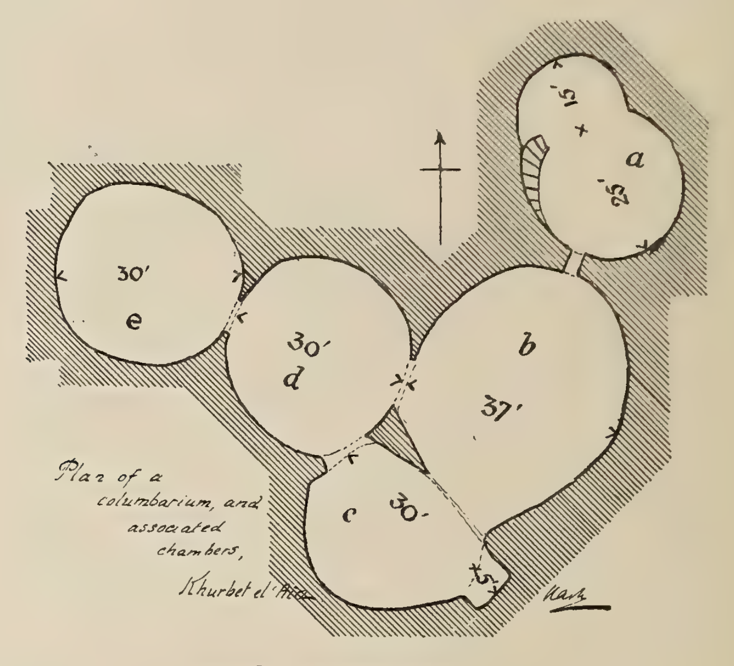


FIG. 85. PLAN OF NO. 17.

must assume this interference to have been the work of people not deterred from mutilation of the sacred emblem by religious sentiments or by superstition. The loculi (of which there are altogether 445) follow the rule that is almost universal in bell-shaped columbaria, namely, they are crowded together near the floor and staircase—*i.e.*, in the easily accessible parts of the wall—showing that the chamber was not originally designed for their reception. In this respect such chambers contrast sharply with the rectangular columbaria found at Tell Sandaḥannah and elsewhere, of which *Es-Sûḳ* is the finest example. These latter were certainly cut out originally

for the reception of cinerary urns. In the pit under discussion the process of adaptation is arrested, for there are three loculi blocked out, but never cut, close to the foot of the staircase.

By the natives this cave is known as *Abu 'd-daraj* (or sometimes *Imm ed-daraj*), "father (or mother) of the staircase."

17. Lower down, on the same side, is a group of five bell-chambers, each with an independent dome-entrance, and communicating one with another (fig. 85). A much-broken staircase in chamber *a* gives access to the series. This staircase runs on to a pier that separates the chamber from a small annexe behind the stairs, and breaks short about 1·20 mètre from the ground. The whole of the wall of this chamber and of the smaller annexe behind the stairs has been converted to a columbarium. In the innermost chamber, about 2·50 to 3·50 mètres from the ground, are five large, well cut crosses, with expanding ends.

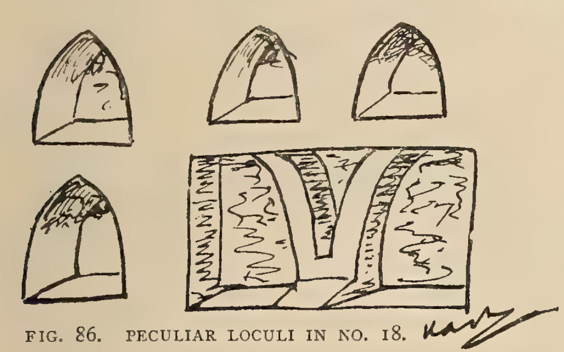


FIG. 86. PECULIAR LOCULI IN NO. 18.

18. Close to the last group is a similar congeries of three chambers. One of these has two or three rows of loculi and two small crosses cut in the wall. There is one singular group of three loculi recessed together inside a square sinking (Fig. 86). I have not seen any such detail elsewhere.

19. This system is near the two last. Much of it has fallen in, and the original plan cannot be recovered with certainty, but it seems to have consisted of three or four rooms with creep-passages associated. One room remains perfect, and is worthy of notice. It is four-sided, about 3·42 mètres by 2·75 mètres. The walls are deeply undercut below, and in the upper portions are five niches, the floors of which are formed of shelves, each perforated with a wide circular hole so as to connect the niches with the undercut portions. There are a blocked passage, several niches for lights, and a blocked shaft in the roof. The presence of a stone, evidently the foot-stone of a rotary olive mill, in the débris of another chamber, shows that this group was either constructed or adapted for the purpose of extracting oil. The olives were placed in baskets or sieves over the holes in the niches, and weights placed on them to squeeze out the oil, which ran into vessels below the niches. There is a similar

perforated rock-shelf in the open air on the eastern slope of Tell Zakariya, and another (rather doubtful) at Khurbet Medawwir.

20. On the *col* connecting Khurbet el-'Ain with the next hill to the south, is by far the finest souterrain of the passage type known to me

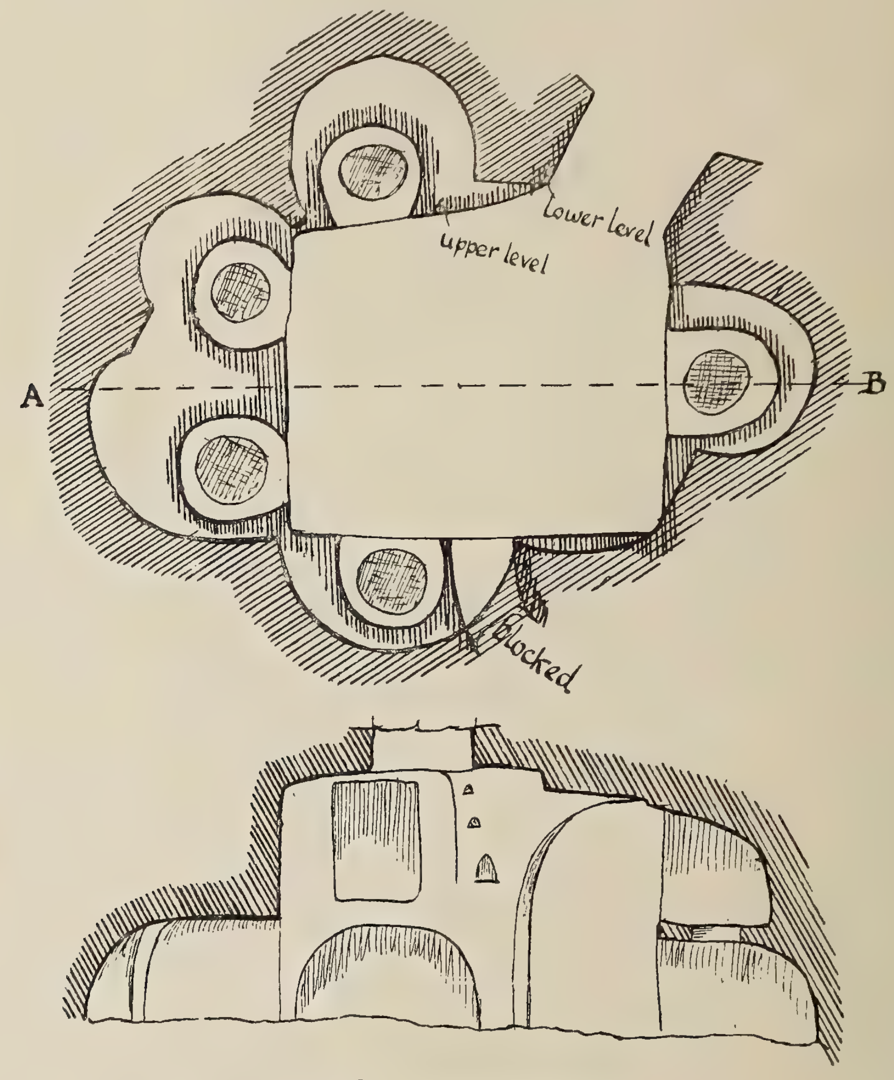


FIG. 87. OLIVE PRESS, NO. 19.

(Pl. 98). A passage sloping downwards leads to three doors, of which one only is open. The entrance chamber is bell-shaped, with a blocked shaft in the roof, as is also the large chamber on a lower level to the left of the entrance. On the walls of the entrance chamber, among light-niches of the ordinary type, are several specimens of "pommelled niches."

At the back (south) of the entrance a step upwards leads to an irregular lobby with four small rooms and two long passages opening out of it. Specially to be noticed is a narrow passage, now blocked at the end, which runs back to the large bell-shaped chamber near the entrance. It breaks into the latter chamber at a height about 3·70 mètres above the ground just under the ceiling. This is one of the "raised passages" of which examples were found in the Great Souterrain at Tell Zakarîya (*see* p. 119) and at Tell Sandaḥannah.

The most curious feature of the western gallery is the groups of small niches, two and three in number respectively, 45 centimètres across, 48 centimètres high, and 15 centimètres to 30 centimètres deep. The first chamber-group on the south side of this gallery has two passages leading upwards from openings in the ceiling. It is probable that these and such openings, all of which are now blocked, were originally made for disposing of the stone cut out from the cave, and were closed up when the cave was finished. Some may have been meant for light and ventilating shafts, but it is not likely that the cave was intended to have nine or ten entrances all open at once. The western gallery ends in a quadrilateral room 6·40 mètres long by 2·43 mètres broad. Two steps lead down to it. The upper step is cut in a very peculiar manner. There is a series of cells round the chamber, the entrances of which were at one time closed with stone doors; fragments of these are lying about the floor. A perspective sketch of this chamber is added to the Plate. The passage to the east is longer than the other, and continues further than is shown in the plan, but progress is blocked by large stones.

The local name of this cave—as of the hill south of it, and connected with Khurbet el-ʻAin by the col in which it is excavated—is *Abu Haggên* (حقين, the ق being pronounced as *g* hard). This means apparently the "Father of Two Truths."

21. I have reserved to the last a description of one of the most interesting rock-cuttings (Pl. 99) I have seen. It is situated on the hillside just under Chamber No. 16 (*see* p. 224). Essentially it consists of a hall, 14·32 mètres in length, and maintaining a fairly uniform breadth of about 5·50 mètres, approached by an open passage, sloping downward, 6·70 mètres in length. The sides of this passage were originally parallel, but the soft rock has been weathered to such an extent that the sides are now deeply concave, following the lines dotted in the plan. The entrance to

the principal chamber is 1·70 mètre wide. The floor is covered with earth to a depth of 60 centimètres to 90 centimètres, sloping upwards towards the door; above this earth the maximum height of the roof is 3·65 mètres. The roof is vaulted, with a slightly pointed ridge. Round this hall is arranged a series of rooms, between the doors of which are niches, cupboards, and other details. A gallery connects one of these rooms with a system of bell-shaped chambers, and in one corner is a short passage, giving admission to a flight of steps conducting to two long galleries. The following is a detailed description of this excavation, commencing with the left-hand side of the entrance doorway:—

a. An irregular quadrilateral chamber about 5·48 by 5·18 mètres. Maximum height, 1·77 mètre above the débris now covering the floor. The doorway is 82 centimètres high, irregular in shape. There are no intelligible marks of fastening upon it. Near it is a blocked doorway that must have led to the entrance passage. It was heavily bolted; apparently a double door was hung in it, as there are pivot-holes at both ends of the soffit of the lintel. Its threshold is level with the floor, and its top level with the ceiling. Between this doorway and the next is a niche for a light. The next doorway also communicated with the entrance passage, and is also blocked: its threshold is 63 centimètres above the present level of the floor; below it are footholds for climbing up to it. The passage behind it can be seen to lead upwards. It is 68 centimètres broad. No tracings of fastenings are apparent. The outsides of these entrances are blocked with earth. In the south side of the chamber is a small opening 61 centimètres broad and only 38 centimètres high, admitting to a small circular cell about 2·13 mètres in diameter, which is more than half filled with earth and stones. Behind this pile of rubbish, and almost concealed by it, is the entrance to a passage which must be open throughout its length, as a draught of air passes through it; there is a fissure in the side of the entrance passage which is probably its other end. Chamber *a* contains some light-niches, and an example of the feature to which I have given the name "bridged niche," *i.e.*, an oval cutting with a bar of rock left bridging it in the centre. The bridge of the present example, which is horizontal, is cut as though a cord had been reaved round it.

b. A small antechamber to *a* with an independent door to the central hall 91 centimètres wide. An opening, 1·93 mètre wide, communicates

between *a* and *b*. From this point onwards the doorways on this side are recessed under a cornice that runs the whole length of the hall, excepting in the apse at the centre.

c. A symmetrical chamber, 2·06 mètres long, its floor sunk 63 centimètres below the floor of the hall. The maximum height is 1·45 mètre. The floor is covered with rubbish. There are two light-niches. Fig. 8 in the plate represents the doorway, and shows the devices, somewhat elaborate and not easy to understand, whereby the door was meant to be fastened by wedges in its frame. Most of the doorways are of this type.

d. A chamber, 1·67 mètre long, similar to *c*, but less regular in plan. Its floor is not sunk below the level of the main hall. The doorway resembles that of *c*, but one jamb is broken.

e. An apse-like recess, having a chord of 4·03 mètres and a sagitta of 1·75 mètre. There is a vertical bridged niche in the right-hand jamb, and a niche of ordinary type in the middle of the curve. Fig. 2 of the plate shows the detail of an interesting cupboard that is cut in the rock above this apse. It is 37 centimètres deep, 42 centimètres high, with sloping jambs, so that the breadth ranges from 42 centimètres at the bottom to 32 centimètres at the top. It was closed by a long board for which a reveal is cut; the board was tied to a tetherhole in the rock (*i.e.*, a hole cut diagonally through a projecting angle) to prevent its being lost. As the ends of the reveal are deeper than the middle, it is evident that the board was slightly warped in order to make it fit more tightly. It was kept in position by a sliding beam that fitted into sockets provided for it at each end; one of the sockets is stepped up and doubled in length to enable the beam to be knocked upwards and withdrawn. Possibly some further elaboration in the fastening of the cupboard was introduced by the shallow dome-shaped recess in the soffit of the recess containing the beam. I have not elsewhere come across such elaborate preparations for the conservation of a small object or objects of special value.

A shaft (fig. 88) was sunk to the rock under this cupboard to determine the depth and nature of the soil. The most noticeable features are the three burnt strata, with clay between them, testifying to three different periods of occupation, and the stone platform lying on the rock, which is here very rotten. The surface of the platform is 3 mètres below the top of the cupboard.

f. A chamber similar to *c*, *d*; its floor sunk slightly below the floor of the hall. The length is 2·26 mètres.

g, *h*. Two similar chambers; an opening 78 centimètres wide communicates between them. There is a small hole in the wall between *f* and *g*, which I should consider the result of accident were there not a similar hole in the wall between *i* and *j*, and I have seen other examples. In fig. 9, Pl. 99, is shown a remarkable niche cut above the cornice over the door into *g*. There are two mortice holes in the back, and two chases near the top in the sides, obviously for the reception of a beam. I wish to keep theory out of the present part of the discussion as far as possible, but it will give a good idea of the appearance of the niche itself if I mention that it seems not impossible that it was meant to receive a flat object of some kind, such as a picture, secured by tenons on the back fitting into the mortices, and intended to be concealed by a curtain hanging from a beam between the chases. Continuing round the walls of the central hall, we turn the corner and examine the chambers in the back wall.

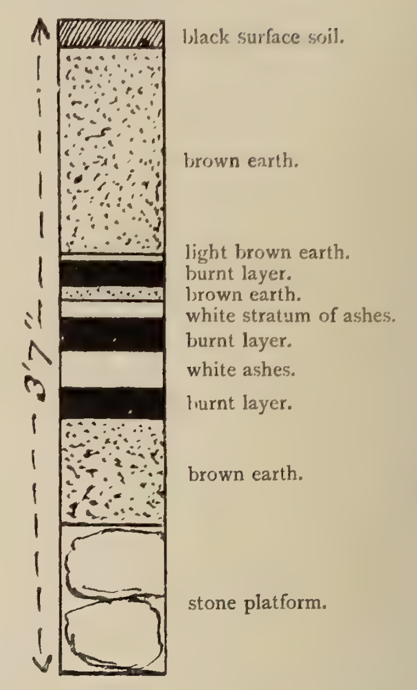


FIG. 88. SECTION OF FLOOR IN THE MAIN HALL OF CAVE NO. 21.

i. This is of the type of *c*, *d*, &c. Its height is 1·09 mètre. The doorway is similar to that of *c*. Between the entrances of *i* and *j* is a singular apparatus (Pl. 99, fig. 10), which consists of three rectangular niches (numbered i, ii, iii, for reference in the figure from top to bottom), diminishing in all three dimensions from i to iii. In the floor of i is a depression, having in its centre a round hole communicating with ii; to the right of i is a tether-hole. In the floors of ii and iii are two cups in each, with a channel leading from one of those in ii. Beneath iii are three small pigeon-holes side by side; in line with these is a fourth on the other side of the door into chamber *j*. The dimensions are:—

—	Height.	Breadth.	Depth.	Distance to next below.
	cm.	cm.	cm.	cm.
i	38·10	59·68	38·10	10·16
ii	33·02	38·10	23·50	10·16
iii	25·40	35·56	17·78	11·43
Pigeon-holes	15·23	16·51	11·43	76·20 (to rock)

This system of niches has features in common with others of similar type; thus in cave No. 20 is a niche with two cups, and in cave No. 19 is a series of shelves with circular perforations; but I have never seen anything similar to the *ensemble.*

j. Another chamber of the same type, 1·83 mètre long. Its floor is sunk 61 centimètres below the threshold of the door—15 centimètres above the rock-floor of the hall. The height is 1·54 mètre above the rock.

k seems to be the result of the breaking together of two cells, one 1·67 mètre deep, and similar in character to those already described, the other rather shallower. The floor of the first is sunk 23 centimètres below the threshold, that of the second is flush with it. From the sockets remaining in the wall of the second cell it is evident that it was meant to be crossed by two horizontal wooden beams and one vertical post; but the purpose of these constructions is obscure. The two remaining mortice-holes on the western wall are connected by a narrow hole running between them. We now return along the western side.

l. The entrance, unlike all the others, is raised above the surface of the ground, at a height of 1·09 mètre. There is a foothold under it. The doorway itself is 1·24 mètre high, and has sloping jambs, so that the breadth ranges from 32 centimètres to 71 centimètres. A short passage, 2·18 mètres in length, leads to a narrow doorway 49 centimètres across, behind which is a straight staircase—an extreme rarity in these caves. There are twenty steps, ranging from 13 to 20 centimètres in tread, from 17 to 20 centimètres in rise (excepting the topmost, which rises 37 centimètres), and from 32 to 50 centimètres in length. The top of the stairs is blocked; it apparently led up to the open air. On the right hand side (ascending) are two niches; on the left are the entrances to two passages, one above the other.

The upper passage leads immediately into a small domed cell, 1·72 mètre high, 79 centimètres across, from which two passages lead in diametrically opposite directions. One runs for 79 centimètres only, and is then blocked with clay; the rock where it disappears is cut into a revealed doorway. The other runs 1·67 mètre, and leads to what looks like a natural fissure in the rock, under the floor of which, however, a domed cell has been cut, with its entrance revealed for a stopper. There are three small cups beside this entrance cut in the floor of the upper chamber. The lower passage winds for about 15 mètres, after which it suddenly comes to an end in a block. There are a few small niches, but only one chamber in its course. There is a curious channel cut in the rock connecting the right jamb of the entrance to the lower passage with the top of an adjacent step.

Returning and proceeding along the wall of the main hall, two shallow niches will be found beside, and at a level with, the entrance to *l*. Between the first of these and the door of *l* is a mark, apparently a broken vertical-bridged niche. The first niche is 68 centimètres across, 72 centimètres high, and 15 centimètres deep. It is round-headed. The bottom is not straight, but has two notches, one at each end, 8 centimètres deep, and 13 centimètres across. To the right of this niche is a small rectangular hole, 10 centimètres deep, connected with it by a channel bored through the rock (compare the similar feature already described in *k*). The second of the large niches is 81 centimètres high, 64 centimètres across, and of a maximum depth of 15 centimètres. In the floor of this niche is a groove running its whole length, 25 millimètres across, and deepening from zero at the left hand to 6 centimètres at the right hand end. The bottom is slightly oblique, the right being the lower end.

m. This is in reality a single chamber with a small ante-chamber—a miniature version of *a*. The door leading to the ante-chamber is 81 centimètres high and very irregular; at the bottom it is 40 centimètres across, and at a height of 15 centimètres it suddenly expands to 89 centimètres. A channel runs from the end of doorway *l*, bending round the head of this doorway and dying out at its side. It is one of the many minor features of this perplexing excavation, that no doubt served some purpose, though it is difficult to imagine what that could be.

The second door is the lower part of a niche 1·78 mètre high. The upper part, or niche proper, is 81 centimètres high, and 50 centimètres deep.

Except a channel cut to its side from the end of the second of the niches described above (after *l*), there is nothing to attract special remark. Between the niche and the door-opening is a transom, its face recessed 23 centimètres behind the surface of the wall. The door-opening is of the same type as that of *c*, save that the jambs bend outward at the bottom, making the width of the opening at the bottom less than in the middle. The chamber itself is only 79 centimètres in height. The plan is quadrangular, about 1·83 mètre in depth. Between the second floor of *m* and *n* is a broken horizontal bridged niche and some obscure channelling.

n. The door to *n* is the lowest of a set of three openings in the wall. The topmost is an irregular oval niche, 61 centimètres long, 25 centimètres deep, maximum height 30 centimètres. The central opening is square (the lower left hand corner not cut out), 89 centimètres high, 45 centimètres deep. The doorway itself is 76 centimètres high; the jambs are cut away at the bottom. The chamber is 1·83 mètre deep, 69 centimètres high. Next to the entrance to *n* comes a niche, 1·02 mètre high, 64 centimètres across, 53 centimètres deep; and next follows another, 1·31 mètre high, 96 centimètres across, 55 centimètres deep. There is a horizontal bridged niche and a tetherhole between these two openings, and certain mortices for the reception of timber beams.

o. This is a small opening, 53 centimètres across, 40 centimètres high, which communicates by a passage with *r*. The left side of this opening has been blocked out as though to quarry it away.

p. An opening, 71 centimètres across, 79 centimètres high, 1·52 mètre deep. There is a broken tetherhole on the right jamb, and a bridged niche on the left.

q. A quadrilateral cell, 1·35 mètre deep, 73 centimètres across, 61 centimètres high.

r. This is a chamber, the entrance to which is gained by a creep-passage contained under the same opening as *q*, and separated from it by a recessed partition. The chamber is 4·67 mètres by 3·29 mètres mean dimensions. At the south side is the second entrance by a narrow passage from the entrance *o*. The north side is undercut considerably, but is so blocked up by earth and rubbish that it is not possible to estimate the full extent of the cutting; there appears to be a passage at the place indicated in the plan. In the north-west corner is the entrance to a tunnel, 2·74 mètres long, now filled with large stones. This passage connects

the system we have been describing with a series of extensive bell-shaped chambers which will be described below. No further rooms open out of the main hall. Between the entrance to the chamber *r* and the approach to the hall there are three small niches, one on the west, two on the north side. These are at the present ground level; the first is 1·04 mètre across, 1·11 mètre deep, the second 30 centimètres across and 23 centimètres deep—a mere mortice-hole—and the third 66 centimètres across and 40 centimètres deep.

Before leaving the hall, we must notice an interesting feature. The section (Pl. 99, Fig. 3) and roof plan (Fig. 7) show that over its surface sockets have been cut, unquestionably for the insertion of wooden beams and struts. If these were all in use at one time the space inside the hall must have been cut up by a very elaborate framework of beams. With a view to discovering how these beams ran, and thereby endeavouring to gain an insight into the purpose for which this remarkable hall was cut out, I attempted to make a perspective drawing with the beams, restored from the indications, in position. I found it, however, impossible to do so with any degree of certainty, as some of the mortice-holes are not sufficiently definite in their indication of the directions in which the beams they received were intended to run. I am therefore unable to say anything with confidence; the hall seems to have been divided in two by a partition close to the peculiar locker or safe already described (p. 231), and along the west side were a series of compartments, separated by upright beams supported by wooden struts, corresponding nearly—not quite—to the division formed in the wall itself by the numerous doors and niches.

Leaving the cave by the vestibule and proceeding a few paces westward, we reach the entrance to No. 2 in the series of four rooms connected by a tunnel with the chamber *r* of the main system. No. 1 is a small room, roughly about 3 mètres square. No. 2 is a bell-shaped chamber about 5·18 mètres in maximum diameter. A door 9 feet wide gives admission from this to No. 3. Above this entrance is a piercing shaped like a small doorway. No. 4 is a great chamber about 12 mètres in height. It has an opening in the side, close to the top, communicating with the open air; this is partly stopped up with a cylindrical stone with a large perforation in the centre, resembling the coping-stone of a well shaft. There are also two other doorways high up in the sides of this chamber. One to the west is inaccessible without a long ladder; the passage running

from the side of the staircase connected with *l* in the main system seems to trend towards it, and I have indicated a probable connexion between the two by dotted lines. This would give us another instance of the practice of running a narrow passage from an inconspicuous accessible part of a labyrinth to an inaccessible spot in the wall of a large chamber—one of the most curious and interesting details of these Shephelah caverns. The second raised entrance was accessible by a flight of stairs, hacked away and broken at the bottom ; it is still possible to climb up to the doorway, but it is blocked.

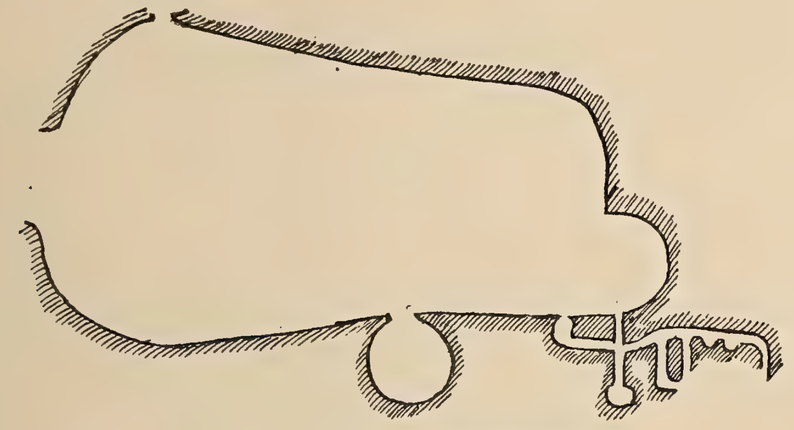


FIG. 89. CAVE AT KHURBET EL-'AIN.

There is another cave (Fig. 89)* almost immediately below that last described, which further illustrates its peculiarities. In both we have a long hall with chambers opening off its sides, and at the end a labyrinthine system of passages. In this case the passages are unfortunately choked with earth, and even the portion planned cannot be explored without considerable difficulty. Two niches will be noticed, such as attracted our attention in No. 4.

(VII). *Beit Jibrîn.*—22. I have nothing to add to the descriptions of the caves at Beit Jibrîn already published, except a plan of one specimen. The example chosen is 'Arâḳ el-Mâ, probably the best known of all (Pl. 100). It is remarkable on account of the presence of two figures, side by side, cut high up on one of the walls. The figures have outstretched arms, and have been explained as rude representations of the crucifixion, or else as figures of persons in an ancient attitude of prayer. Another example of the same type of figure, previously unknown, occurs in one of the Tell

* The plan is not drawn to scale, but sufficiently illustrates the disposition of the cave.

Sandaḥannah caves. The cave consists of two great chambers, or more probably successions of ruined chambers, now roofless, each over 120 mètres in length, and comparatively smaller chambers (but so large that their domes have to be supported by great pillars) opening off them. In two places is a spring of water under the floor of the cave.

'Arâḳ el-Hilleil, in the immediate neighbourhood of 'Arâḳ el-Mâ, is probably of even greater extent, but does not differ from it notably. Indeed, after having seen one or two of these Beit Jibrîn caves, the student may satisfy himself that for practical purposes he has seen all, as, with one exception, they present few or no fresh points of interest. The exception is 'Arâḳ el-Kheil, which is remarkable for its long chapel-like hall adorned by a frieze in *cavo relievo.* Sketches of this frieze appear in *The Palestine Survey Memoirs*, and in M. Clermont-Ganneau's *Archæological Researches in Palestine.* Except for their immense size, the Beit Jibrîn caves are of comparatively small interest.

(VIII). *Tell Sandaḥannah.*—All the caves which I explored—so far as they come within the limits of the sheet of paper—are numbered upon the plan of the hill (Pl. 15). References to these numbers are given in brackets in the present list.

23 (1). An elaborate system, or rather group of systems combined together. The most interesting features are (*a*) the entrance hall, which has aisles on each side screened off by a rock wall perforated by doors and windows; (*b*) a singular zig-zag gallery, to which reference has already been made. The floor of this gallery rises in its course, perhaps by steps, but the floor is so thickly covered with earth that this is uncertain; (*c*) a magnificent rectangular pillared hall, 14 mètres long by 5·28 mètres across. The height of the chamber is about 6 mètres. Débris covers the floor for about half this height, but at one end of the chamber this has been emptied out and a retaining wall built up. That this was done to make a cistern is proved by a water-drain running along the wall and up a shaft to the outer air. There is a doorway (among others) in the wall, high up (about 3·65 mètres from the ground), which is inaccessible, and to which I did not succeed in finding any other approach. It seems to be another example of the peculiar raised passages already mentioned more than once. Except a peculiar pair of niches (one double) in an irregular room at the end of the zig-zag passage, and a pair of vats in another chamber, there is nothing to call for notice in this system.

24 (2). This is unimportant, except as illustrating the normal shape of columbaria in the Sandaḥannah series. There are two in the present cave: these, unlike the majority of other chambers, are rectilinear, sometimes mere passages, and open off one another at right angles. In Souterrain No. 61 a columbarium will be seen on a cruciform plan. The loculi in the whole series, with one conspicuous exception (No. 30), are always *square* (an unusual shape elsewhere), and are arranged either in vertical and horizontal rows:—

* * * * * *
* * * * * *
* * * * * *
* * * * * *

or more commonly *in quincunce*

* * * * *
 * * * *
* * * * *
 * * * *
* * * * *

The word "souterrain" was printed on the plan in this and other caves before I had decided to restrict the word to caves containing not less than ten chambers. Above the middle of the large columbarium in this cave is the false dome already mentioned, p. 213.

Caves 3–17 are comparatively uninteresting, and as they merely repeat details of other caves, are hardly worth describing.

25 (18). This souterrain (Pl. 101) presents several interesting features. Before proceeding further, let me venture to claim a little indulgence for this and some other plans, which, for several reasons, cannot pretend to absolute accuracy. Accurate plans would have required an immense mass of measurements, and as the exploration of the caves was always regarded as of secondary importance to the work on the actual excavations, it was impossible to spare the amount of time and labour that so many measurements would require. Moreover, I do not think the value of the result would be increased in proportion to the expenditure of energy, as these plans show all the important details—the size, general shape, nature, and disposition of the chambers (determined by one or two overall measurements with a tape, and observations with an ordinary compass). And further, accurate plans would be complicated and almost unintelligible; for it would be next to impossible to represent the overlapping of adjacent bell-chambers opening from one another, whose floors happen to be at different levels. Bell-chambers with spiral steps are, for convenience, represented as though projected into cylinders in the present plans.

The entrance is at A. The most convenient route through the principal part of the souterrain is marked by a dotted line, and the chambers are numbered in the order in which they would naturally be visited in following this line. It is also possible (though dangerous) to enter chamber 6 directly through its dome-entrance, and (with the aid of a crane) to enter the large rectilinear columbarium (5) by holes in the roof. The passage from chambers 1 to 2 has on the left a great pile of loose earth, which it would be unwise to attempt to climb over, as it would probably result in the explorer being thrown into and buried at the bottom of chamber 2. If this impassable barrier could be got over, it is probable that further chambers would be found behind it. A window (perhaps accidental) is broken between chambers 1 and 3. A very narrow hole, which has to be passed through with caution (as there is a six or seven-foot drop on the other side), leads to the very fine stepped bell-chamber No. 4. The fifth chamber is a columbarium, having three to five rows of square loculi, *in quincunce,* on the walls; there are some triangular loculi among them. The sixth chamber is a stepped bell, remarkable for *not* belonging to the Sandaḥannah type: *i.e.,* it has no parapets to the staircase. Chambers 7 and 8 are a remarkably interesting pair, opening from the foot of the staircase in 6.* They are approached by a double-parapeted stair (the only one I have seen) running down the opening between them. Chamber 8 has also an independent staircase of its own, branching off near the top of the common stair. Another quite unique feature of this part of the excavation is the extraordinary cylindrical shaft, 15·25 mètres deep, in the centre of the floor of 7. Seen through the darkness by the dim light of a candle or two, the mouth of this pit is highly suggestive of Edgar Poe's gruesome tale, "The Pit and the Pendulum." A section, showing this shaft, and a sketch of the double-parapeted stair, will be found on Pl. 101. The diameter of the shaft widens to about 2·50 mètres, a width which it maintains uniformly throughout its whole length. Down the sides are to be seen the putlog holes for the scaffolding by which the excavators ascended when their work was done: it was then probably fired so as to get it out of the way. There does

* It is as well to warn would-be visitors to this cave that the passage from 6 to 7 must be made with extreme caution: loose earth makes the foothold on the top of the stair rather treacherous.

not appear to be any side opening at the bottom; at least, none can be seen from the top by the light of a candle lowered by a cord. The deep rope grooves round the mouth show that something, probably water, was habitually drawn out of this shaft.

The rest of the cave is of less interest. The opening between 8 and 11 is stopped by débris. To proceed farther a return must be made to 4, and its staircase descended below B, the point at which this chamber was originally entered. Chamber 9, passed on the way, is of small size. The five chambers 10–14 are all greatly ruined, possibly by an earthquake, the fragments of their roofs, walls, and staircases are lying about the floor in wild confusion. The original partitions between them have been nearly completely destroyed, so that the general effect is now that of one enormous room. High up on the wall of 14, at a point once accessible by a staircase, but now not to be reached without some very unsafe climbing, is a doorway probably leading to a continuation of the system.

26 (19). This cave is entered by a fissure in the hill side so insignificant that it would easily escape notice, although internally the system is of considerable extent and contains some very large and deep bell-chambers. A complete description is unnecessary, as its component members are for the most part of ordinary character. One of the bell-chambers has a twin filter chamber at the side. There is, however, one specialised chamber, 13·70 mètres long by 10·97 mètres across, having on one side (the eastern) an aisle 4·88 mètres wide, and separated from the chamber by a wall pierced with a door and four windows. The occurrence of numerous tether-holes at the back of this wall suggest that the chamber (to which no doubt there was formerly a more convenient access, now concealed externally) was intended as a stable for horses; for this purpose it would be well adapted (*see* plan and section, Pl. 92).

27 (21). Contains an olive-press of the kind already described.

28 (24). A small cave above the level of and completely independent of the large souterrain, No. 25. It contains two chambers, and is difficult to enter on account of the slipperiness of the foothold at its mouth.

29 (27). This cave consists of three independent stepped bell-chambers, with a subsidiary chamber opening out of one of them by an almost impassable doorway. The entrances to these chambers are square, and well cut; on the right jamb of the central entrance a rude human figure is cut. Exploration of the cave is dangerous.

30 (29). A souterrain remarkable for the size and irregularity of some of its chambers.

31 (30). This well-known columbarium, called es-Sûḳ, "the market," has been fully described in the *Quarterly Statement* for 1901, pp. 11-19, to which reference should be made.

This columbarium is in character entirely different from the other caves of the district. It is true that associated with it is a group of chambers of the usual roughly circular type; but there seems to be every probability that this association is accidental, and that the columbarium is to be treated as an independent excavation. A reduced plan of these associated chambers is given in the annexed figure, at *a*.



FIG. 90. ENTRANCE TO NO. 29, WITH GRAFFITO ON THE JAMB.

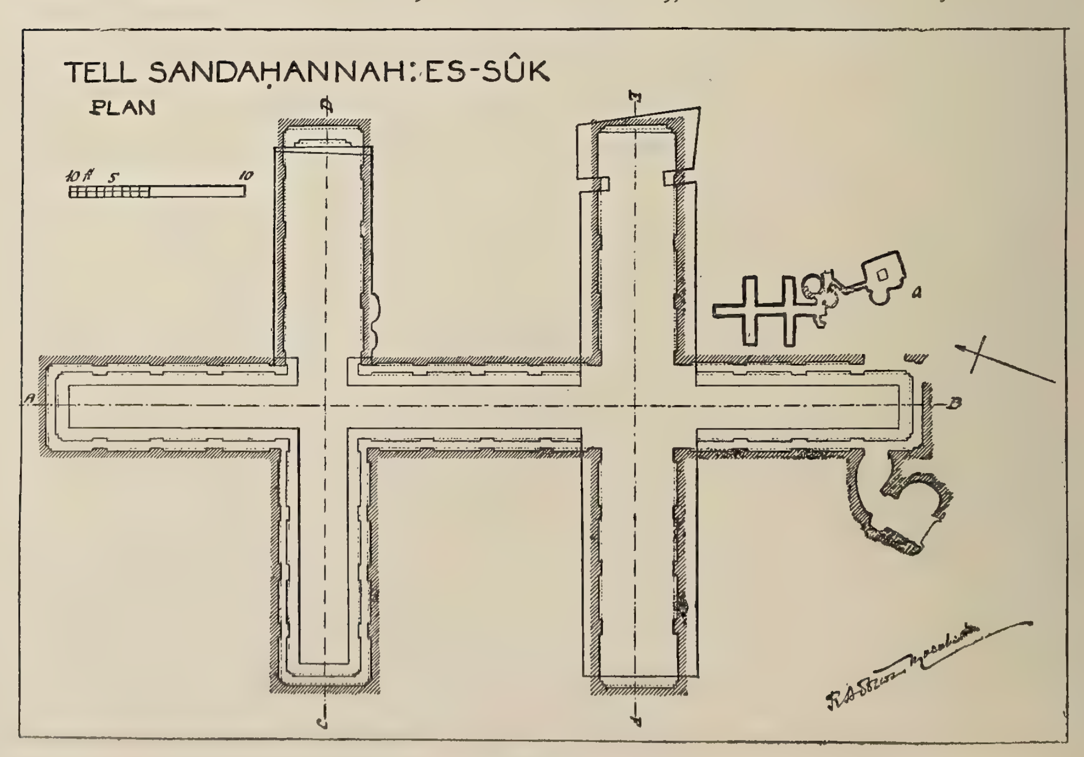


FIG. 91.

The present entrance is through a square hole, about 1·50 mètre across and 1·80 mètre deep, which opens into the top of a large irregular chamber much blocked with débris. This is about 9·14 mètres across. At one side there are traces of rows of niches, showing that the chamber has been used as a columbarium. Immediately opposite to these niches is the entrance to a narrow creep-passage. This is almost the only existing specimen in the 60 labyrinthine excavations on the slopes of Tell Sandaḥannah. The passage is 91 centimètres across, 63 centimètres high, and 10 mètres long. A drop of 1·20 mètre leads to the level of the floor of a lobby, from which two circular chambers open. These are to the left of the end of the passage; to the right there seems to have been an exit, now blocked. Of these chambers, the diameter of one is about 5·80 mètres, that of the other 4·50 mètres. The latter, which is sunk below the

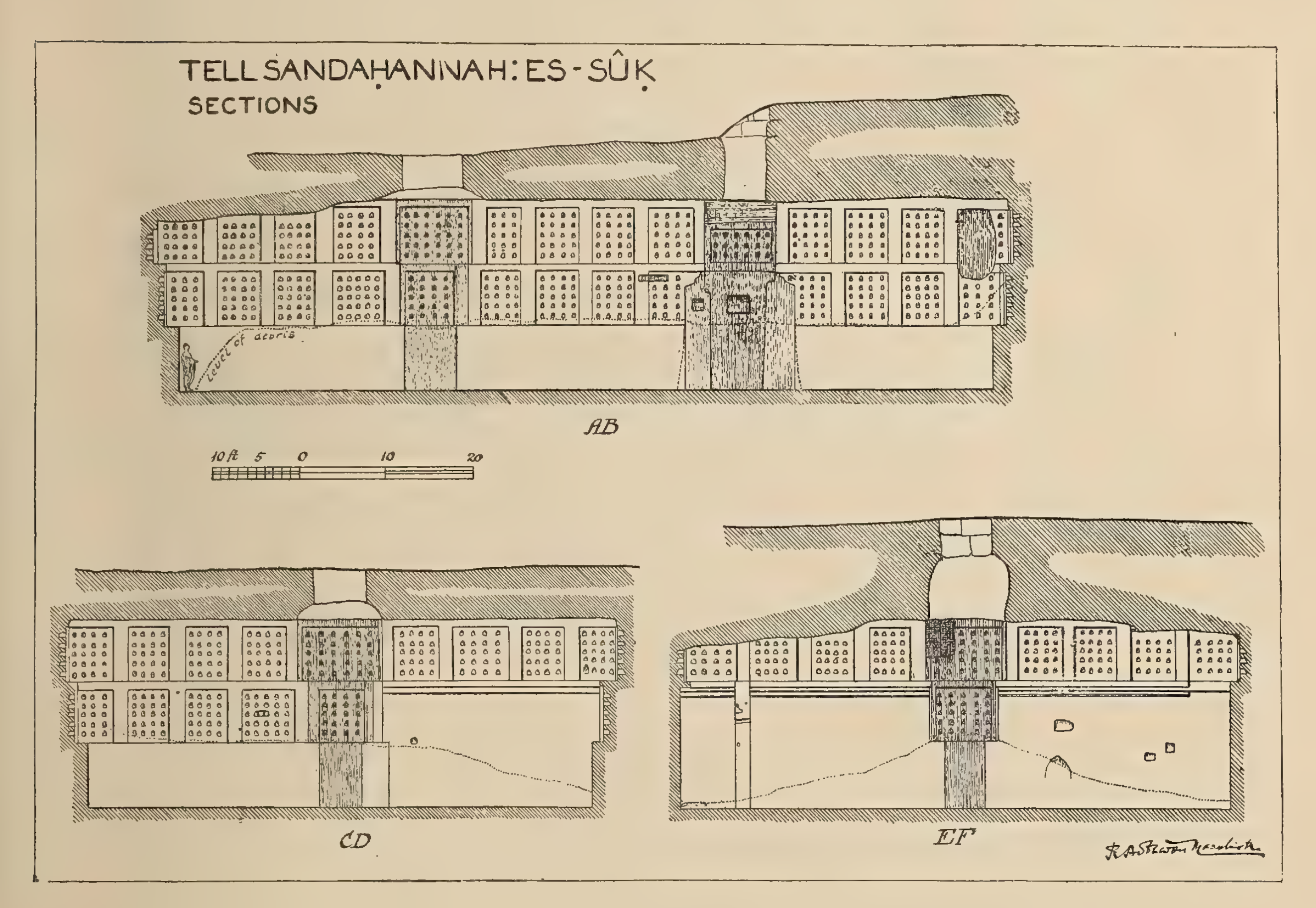


FIG. 92.

level of the floor of the lobby, is approached by a staircase with a parapet, now ruined. A shallow pit, 2·35 mètres by 1·08 mètre, is sunk in the floor, opposite the door. Between these two chambers an irregular hole now gives access to the "*Sûḳ*" itself.

The excavation is a long tunnel, with two transepts crossing it at regular intervals, the whole being covered with a flat roof. The workmanship and accurate setting-out of the entire columbarium are admirable. The walls are in three stages, recessed each behind that below it. The

lowest stage is a plain plinth; the two upper stages are divided by pilasters into sunk panels, each containing rows of loculi for cinerary urns. The axis of the tunnel lies practically N.N.W. and S.S.E.; the entrances, ancient and modern, are all at the southern end.

The original entrance seems to have been at the south end of the western wall of the main gallery. It runs inwards for a little over 2·15 mètres, bending regularly from a western to a southern direction. There are bolt holes in the jambs of the doorway into the columbarium. Inward, 2·15 mètres from this doorway, is another, 81 centimètres across and 1·06 mètre high, behind which the passage runs, always trending upwards, for 1·93 mètre, at the end of which length it is blocked. There is a small cell, 98 centimètres deep, 1·29 mètre across, and 1·08 mètre high, on the east side of the passage close to the block. In addition to these entrances there is a hole in the ceiling in each of the crossings, and one at the southern end, outside the limits of the columbarium, and communicating with it by a break in the south wall.

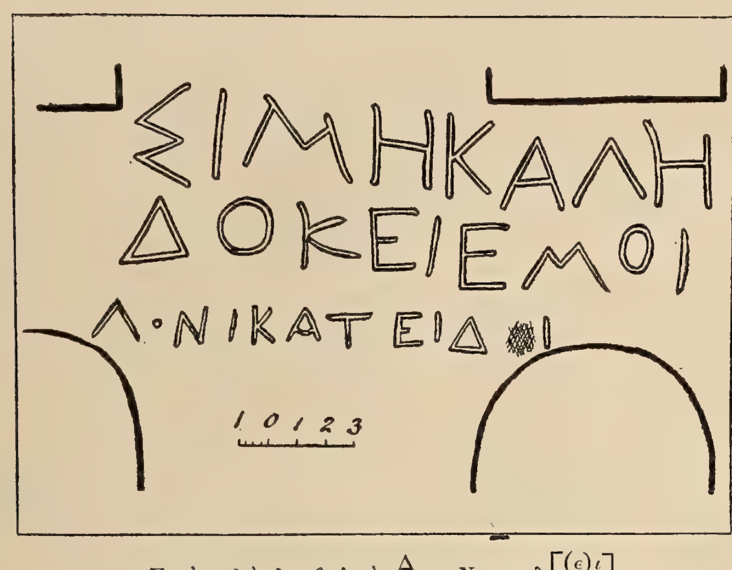
The loculi are semicircular headed, neatly formed, and carefully spaced out. In the northern end panels on each side, middle stage, the surface of the panel shows marks of red lines, blocking it into squares to secure correct setting out; the loculi are cut in alternate squares in every second row. Apparently this blocking was drawn to obtain a guiding rule in measurement rather than for mere mechanical assistance, as it does not occur in any other panel whose original surface remains unweathered. One of the plain squares has a circle marked upon it with a compass: a similar circle reappears in two other places in the excavation, as though the square in question had been selected as a stand and referred to occasionally. Internally the loculi expand slightly in width, and their inner end slopes forward.

DETAILS.—A. MAIN GALLERY.—The plinth or bottom stage of the walls is almost everywhere covered by débris 2·28 mètres in height. The passage, at the plinth stage, is 1·43 mètre broad. The middle stage is set back 37 centimètres behind the plinth, and is 2·43 mètres high; the top stage is set back 30 centimètres behind the middle stage, and is about 2·18 mètres high, but the roof is not of uniform height throughout. The ceiling has, along almost its entire length, been badly fractured. The walls have been carefully smoothed, apparently with wooden combs.

	Mètres.
Length of section of gallery north of north transept	7·97
Breadth of north transept	1·19
Length of section of gallery between transepts	7·59
Breadth of south transept	4·21
Length of section of gallery south of south transept	7·40
Total length of main gallery	28·36

There is but one inscription in the whole columbarium, which was found by Dr. Masterman, of Jerusalem, and myself. Under almost every one of the loculi, when the original surface of the rock survives, there are scratches and weather-marks, some of which have a tantalisingly graffito-like appearance, but, after protracted and careful examinations of these, I was forced to abandon the idea that they had any significance. The inscription referred to is in the upper right-hand corner of the middle panel at the northern end, and runs as follows:—*

* The marks in the corners are the outlines of the adjacent portions of the loculi between which it is cut. The scale is in inches.



Σιμὴ καλὴ δοκεῖ ἐμοί, $\frac{\Delta}{\Lambda}$. Νικατειδ $\left[\frac{(\epsilon)\iota}{?}\right]$

a graffito which I took to mean, "I, $\frac{D}{L}$. Nikateides, think this a beautiful cave"—assuming a substantive to be made from the feminine of the adjective in its secondary meaning of 'hollow, concave.' M. Clermont-Ganneau has, however, corrected this translation to "Simé (fem. n. p.) seems pretty to me" (*Q.S.*, 1901, p. 116).

The total number of loculi in the main gallery and transepts is 1,906;—main gallery, 991; north transept, 580; south transept, 335. The details connected with their arrangement, and present condition, are given in the *Quarterly Statement* for 1901, pp. 15–19.

32. Not far from "es-Sûḳ," but outside the limits of the map, is the only bell-shaped columbarium on Tell Sandaḥannah. It is a stepped bell, and the loculi are cut in considerable numbers on every accessible part of the walls, as well as on an uncut mass of rock that has been left standing in the centre of the floor.

33 (36). A most interesting columbarium, of a different type from any of the others (Fig. 93). The various members referred to by the index letters on the plan are:—

a. A passage raised above the level of the adjacent bell-chamber: at the end is a blocked entrance. The floor is covered with the powdered débris of the easily-disintegrated limestone in which the cave is cut. Alongside is a low bench, about 45 centimètres in height and 61 centimètres across; on this side there are two rows of square loculi, on the others four arranged, as are all the loculi in this columbarium, *in quincunce.* The passage is 5·38 mètres long, 2·03 mètres across.

b. A similar passage, at a similar level: 5·30 mètres long, 2·40 mètres across. The sides seem to be much undercut, and it is probable that there is a deep accumulation of débris on the floor of the passage.

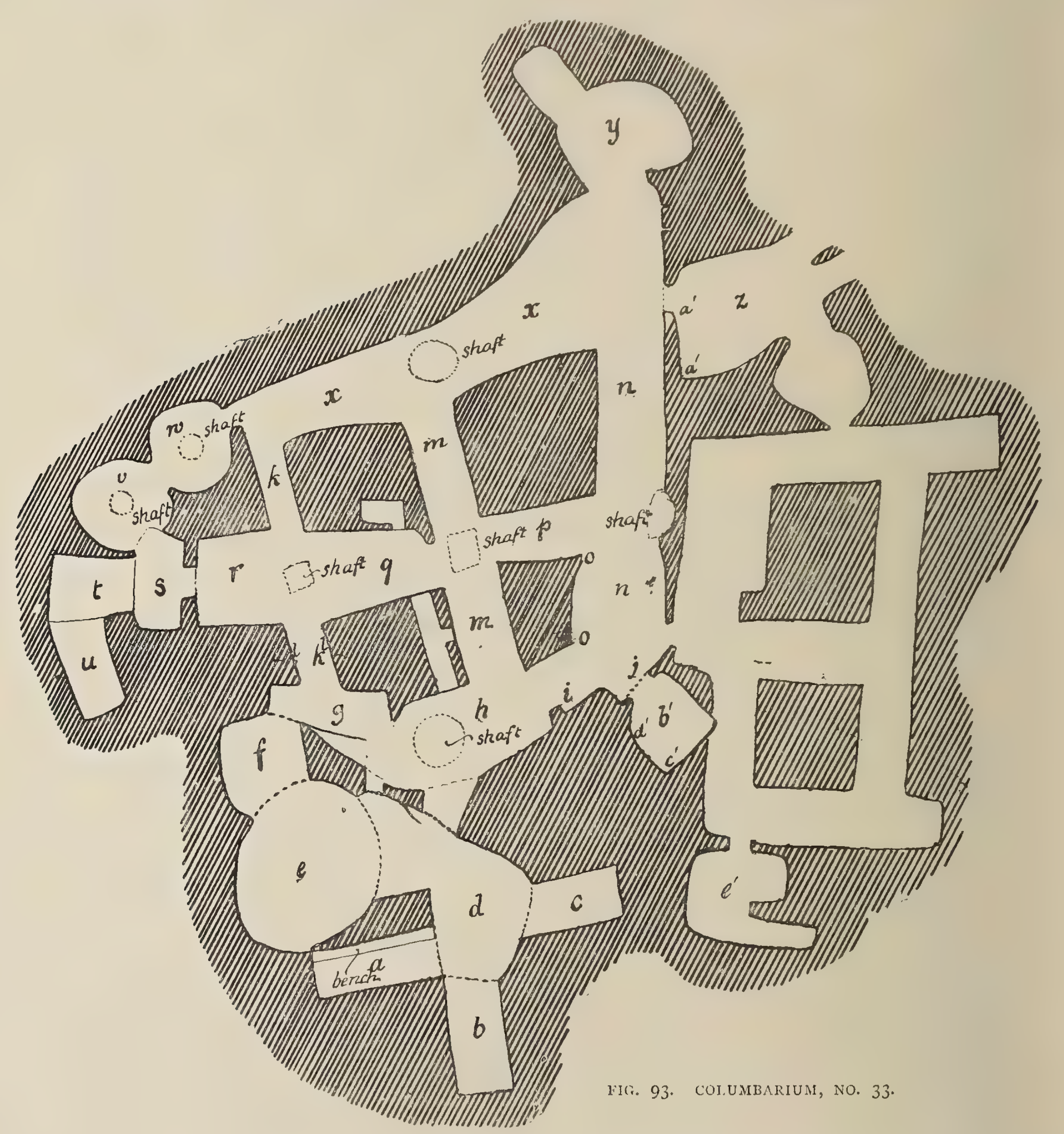


FIG. 93. COLUMBARIUM, NO. 33.

c. A similar passage, but shallower and almost blocked with débris.

d. The vestibule of the columbarium, by which it is now entered through a hole in the roof and down a slope of débris. (There are other

shafts, all open, but these drop vertically to the floor of the cutting.) There are loculi on the walls of *d*, and above the internal doors, except in that opening into *e*, which runs up to the roof of the excavation.

e. A large bell-chamber, 6·70 mètres across, containing no loculi.

f. A low chamber, about 2·50 mètres high (the floor is silted up) and 4·70 mètres in maximum diameter. It only contains a few light niches.

g. Here are loculi arranged in five rows, the uppermost being just under the roof, the lowermost about 1·22 mètre above the present level of the floor. The loculi are square, irregularly cut, but meant to be arranged *in quincunce*.

h, i, j. Nothing to remark. No niches or loculi.

kk. A passage about 12·62 mètres long, with five rows of loculi as before. At *l, l* large cupboards have at some time been made by cutting together three niches in each of the three top rows.

mm, nn, and *p*. Similar passages, similarly arranged; but in *nn* there are no niches on the wall marked *oo*.

q. Here there are no loculi, except two rows at the top of the wall to which the tail of the *q* is pointing in the plan. There is a peculiar passage with stepped roof running through the block *qkhm*, and in the opposite block a small square cell.

r. Here there are no loculi, except three rows near the roof on the left-hand side facing the door into *s*, and two rows in the back wall above the same door. The bolt holes (chased in the right-hand wall) show that there has here been a barrier, on a level with the top of the door and 35 centimètres back from it. The doorway itself is a fine large opening, 1·98 mètre high, with slightly sloping jambs.

s, t, u. Chambers calling for no special notice. There is a light niche in *s*. The chamber *u* is now only 1·27 mètre high; *s* is 2·28 mètres high.

v, w. Bell-shaped chambers with separate entrance shafts.

xx. A passage like *kk*: the walls are, however, disintegrated, and the loculi they contained are nearly effaced.

y. A small chamber, with low ceiling. That of the projecting passage beyond it is lower still.

z. A natural cavity in the rock, the floor of which cannot be explored The wall *a′a′* has been worked and loculi cut in it.

b′. In this chamber the most remarkable feature is a large double niche at *c′*, and at *d′* a shelf like the arcosolium of a rock-tomb.

The remaining portion of the excavation, which is very difficult to explore thoroughly in places, is similar to the principal portion of the columbarium, consisting of passages with loculi in the sides. There are, however, no loculi in the curious chamber *e'*.

The caves marked "inaccessible" on Pl. 15 are those whose mouths are guarded by masonry or earth in very unstable equilibrium, or (as at 38) are of such a kind that cranes cannot be placed at their mouths to lower an explorer. I did not abandon the task of examining them without satisfying myself that it was impossible to enter them, or to return, if they were entered.

In 42, 43, we see another case of two apparently independent systems one above another. 44 contains an olive-press of the type already described.

34. To the south-west of 44, beyond the limits of the map, is an exceedingly interesting and perplexing excavation which is worthy of careful study. It is of a type analogous to No. 21 at Khurbet el-ʿAin (*see* p. 229 ff.), already described. The plan and details will be found on Pl. 102.

The vestibule is a small irregular chamber, containing nothing calling for remark; there have been some small rectangular niches cut in the left wall, but there is no evidence of any particular design in them. The entrance to the principal chamber is the whole height of the latter. It is an opening 2·50 mètres in width, with a flat arch top, on the south side of the main chamber. The details of the latter may be thus described:—

South side. Left (west) of the door, two niches of ordinary pattern. Right of the door, one pommel niche.

East side. Here there are two similar round-arched openings (the northern larger). Each lead into two oblong chambers with barrel-vaulted roofs. The southern chamber has nothing to show inside. There are two corbels between the ceiling of the main chamber and the wall above its door. The north chamber was evidently secured by beams of wood, the sockets for which remain running partly across the entrance and partly at right angles to it—ending in the latter case in a great block of rock left uncut, projecting from the north wall of the cave. Above the entrance to the chamber is a cross in relief.* There are two small cells subsidiary to this cave. In the north-east corner a little door gives access to another small cell.

* Strictly, in *cavo relievo*. *See* page 259.

North side. This is divided into two parts by the great projecting block of rock. To the east of it is a low arch, now 91 centimètres high, which admits to a long passage trending upwards and ending in a small underground *built* cell, formed of well-squared blocks of limestone, and roofed with a true arched barrel vault. Beside the entrance to this passage there is in the wall of the main chamber a double niche, 40 centimètres high, 45 centimètres long. An archway is cut through the large projecting mass of rock, and in its side is the entrance to a small cell. The projecting block of rock shows on the east side a curious curved channel, and the mortice holes for the beams that secured the north chapel, already described; and on its southern end a large Latin cross, with bifid ends, partly broken, a little over a mètre high and about half a mètre across. Some attempt has been made to quarry a large block of stone out at the western side, but it has been abandoned. West of this block of rock in the north wall is a very curious detail—a cylindrical shaft (something like the "kok" of a rock-tomb) with two large blocks of stone lying within it, and evidently deposited there for some purpose. There has been a cross near this, now destroyed.

West side. At the northern end is an oblong chapel, like those on the eastern side. Then comes a curious niche, in front of which is a projecting step, whose top surface is flush with the present level of the floor. I had a shaft dug here and found that the floor of the cave is covered with earth, washed in by the winter rains to the cave, to a depth of 1·50 mètre. This projecting step, the front of which is concave, extends down the whole way. On its top surface are two cups, and at its foot is a circular cavity in the rock floor of the chamber. This cavity was of course full of earth. Its depth was sounded by a long crowbar, which failed to reach the bottom; we must therefore have here either a well or a lower chamber. Beside the niche is the entrance to the last of the subsidiary chambers, a square cell with flat roof containing no special details calling for notice except a well cut niche 57 centimètres deep, 60 centimètres across, 83 centimètres high, near the door. Outside the door of this cell there are four holes in the roof of the main chamber, and excavation reveals corresponding holes with chases, not in the floor of the chamber, but in the top stones of a pile, 60 centimètres high, laid loose on the floor and covered by the accumulation of earth. There must have been four wooden beams standing upright on those stones and fitting into the roof,

but it is difficult to form an idea of their purpose. There are several niches, circular, triangular, and pommelled, which it is unnecessary to specify in detail. In the long passage to the north are two crosses incised on the walls in the positions and of the shape marked on the plan. This is the only cave in the Sandaḥannah series in which crosses are to be found, though they are common enough in other caves.

35 (48). The principal chamber of this cave is 16 paces in length, and is chiefly remarkable for a series of three vats arranged along one side. There is on the other side a stepped bell-chamber about 20 feet deep. The whole floor is deeply covered with the dust of disintegrated limestone.

36 (53). The well-known *Mughâret Sandaḥannah* is the cave that visitors are always taken to see. It is obviously that described by Prof. G. A. Smith (*H.G.*, p 243). Though of great extent, it cannot claim the interest of some of the other souterrains. The most remarkable features are (1) a passage, vaulted with a built arched vault of limestone blocks; (2) a pair of stepped bell-chambers, one of which is interesting as *not* being of the Sandaḥannah type; (3) the central pillared hall, which would be a most imposing excavation were it not so much buried in accumulated earth and rubbish,

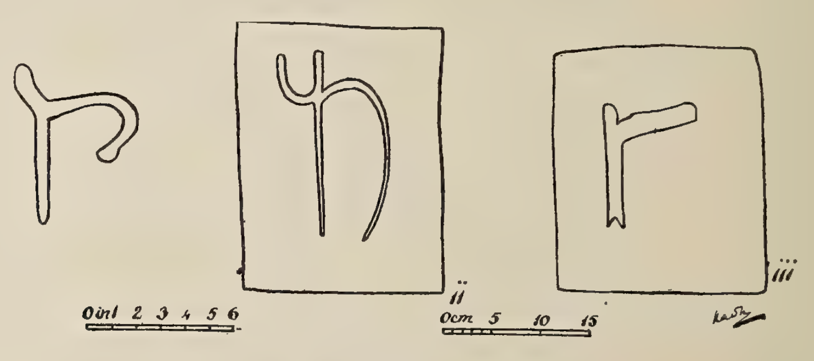


FIG. 94. GRAFFITI IN NO. 36.

and (4) a curious little chamber having two small bell-shaped cells sunk in its floor. One of these has rope-grooves at the mouth as though water had been drawn out of it; but it is far from clear how water could have got into this hole. On the wall of an inner chamber I found three square places carefully smoothed, with the letters ק, ח, and ר (?) in a character of apparently about 300–100 B.C. They are disconnected, and I refrain from speculations as to their significance.

37 (56). This souterrain is another whose size is by no means indicated by the entrance. A seemingly natural fissure, with an open shaft a little south of it, are all the outward signs of its existence. The open fissure leads into a small chamber with a pillar in the middle. Here the system bifurcates into two branches, a southern and an eastern. The south branch consists of a succession of five irregular chambers of no great interest. One of these contains the end of a "raised passage" to which I did not discover the entrance; it is probably blocked. The last chamber but one contains a large number of drums of columns of some building, which have been thrown in. The end chamber is a very fine deep stepped bell, of the Sandaḥannah type; there are fifty-two steps in the staircase. The eastern branch commences with a small low chamber, which admits, by an opening so silted up as to be only just practicable, to a long room; this I estimated (by pacing) to be about 20 feet in length. We then pass through a small cell, and a small stepped bell-chamber (provided with probably the finest filter-chamber in the whole series) to a passage which leads to a very curious twin chamber, on plan resembling two D's arranged thus—ᗡD the left-hand D being at a rather lower level than the other, and the partition between them consisting of a dwarf wall with a doorway cut through the middle. Part of the wall of the left-hand chamber is built up with blocks of limestone. Beyond are two stepped bell-chambers, the furthest of them containing sixty steps. The three inner chambers and a sketch of the filter-chamber are shown on Pl. 101.

38 (60). A single chamber, with the roof supported by five pillars, on one of which is the graffito of the praying figure (or crucifix) already mentioned (*see* Pl. 101). A short creep-passage, now blocked, connects this cave with a columbarium which has an independent entrance.

39 (61). A complex souterrain containing in its system three columbaria, an olive press, a filter-chamber (Pl. 101), as well as many stepped bells and other chambers of ordinary type.

40 (63). This cave consists of (*a*) an irregular oval chamber, with a straight parapetted staircase running down the left side (south of west); beside the entrance hole are two round holes in the roof. (*b*) At the head of the staircase, a small oval chamber, 4·87 mètres by 3·35 mètres, the floor sloping downwards from the entrance; beside the door is a rectangular window looking into (*a*). At the bottom end is a large niche or cupboard. (*c*) At the top end of (*b*) a well squared chamber, of which a special plan is given; it contains three niches, in the bottom of each

of which is a bell-shaped cell or vat about 7 feet deep. This is perhaps some sort of olive press of a new type. There is a plain Greek cross cut on the left jamb as one enters the chamber. (*d*) A large fine regular

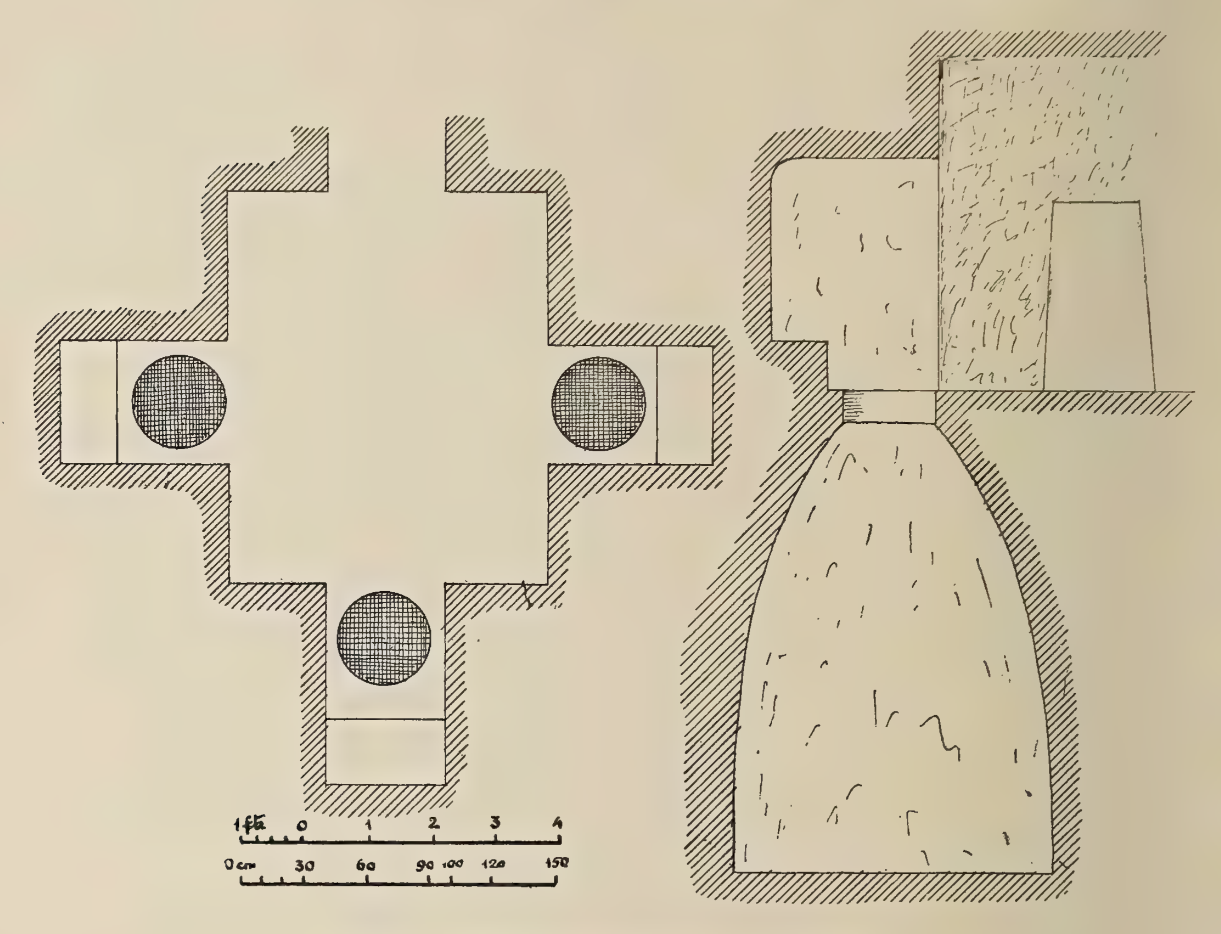


FIG. 95. CHAMBER IN NO. 40, PLAN AND HALF-SECTION.

bell of the Sandaḥannah type, at the foot of the staircase in (*a*). The doorway into (*d*) is 3·65 mètres high, the depth of the bell is 12·80 mètres, the diameter at bottom 8·84 mètres. There are fifty-three steps in the staircase.

IX. ʿAtraba.—The caves here are combinations of ordinary plain bells having dome entrances, with passages, some of considerable length, connecting them. None require any special description.

X. Beit Leyi.—Here are several caves, all comparatively uninteresting, with the exception of one which has all the appearance of a rock-cut Christian

chapel. The description, already published (*Q.S.*, 1901, pp. 226–229), is as follows :—

The plan and details are shown in the accompanying cut. It consists of a four-sided nave, no doubt meant to be rectangular, with an aisle-like extension northward, and a shallow apse

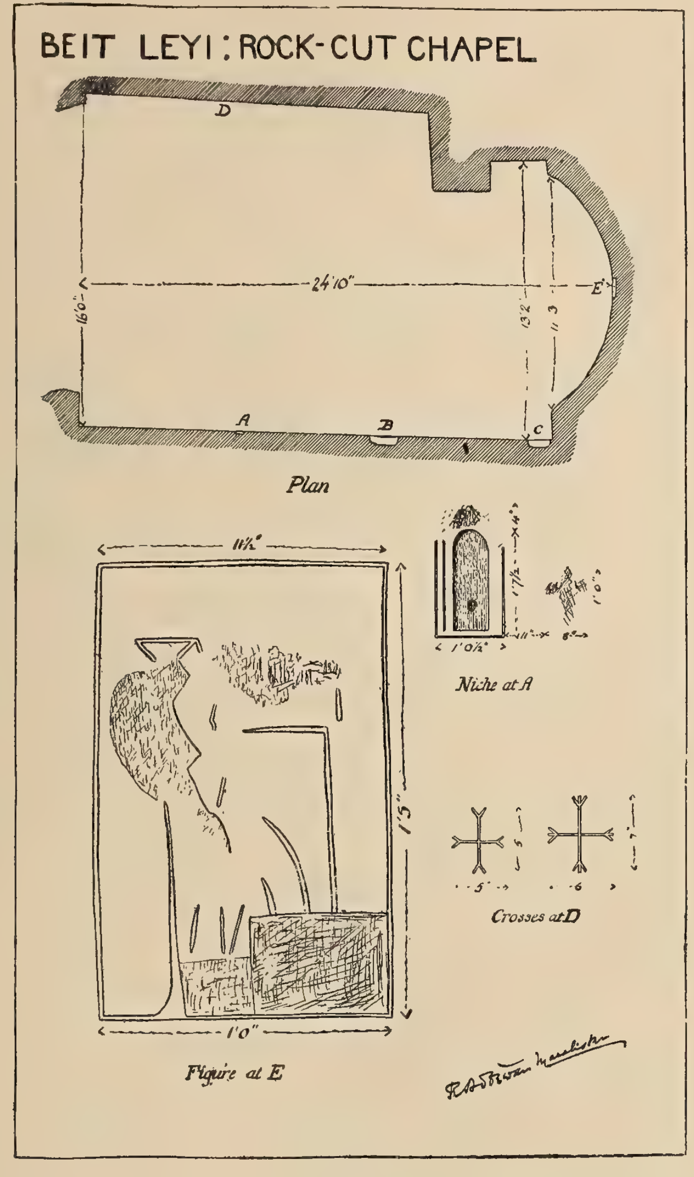


FIG. 96.

at the eastern end. The entrance is at the west. The excavation has long been used as a sheepfold, and the floor is covered to within five feet of the roof with rubbish and dirt. The

tooling of the walls is rather different from that commonly found in the rock-cuttings; on the south side it resembles that of the Romanesque chamber in 'Arâḳ el-Kheil, but on the north the surface is not so smooth. The west wall is broken away, and its place is supplied by loose stones. The apse is shallow and wide; the sweep of the curve is not regular.

On the south wall, at A on the plan, is a niche, apparently for a statue, with a plug-hole to secure it at the back. There are attempts at moulding on the sides of the niche. At the side of the niche a cross was cut, now partly hacked away; and at the top there seems to have been another, which has been entirely destroyed. At B is a plan niche, apparently for a light; it has a semicircular top, and measures 33 centimètres by 33 centimètres by 17 centimètres in depth. At C is a similar niche or light-hole. On the north wall, at D, are two crosses with bifid ends to the arms.

In the centre of the apse a figure subject has been cut, in a sunk panel, but it has been nearly destroyed by fellah iconoclasts. On the cut is given a copy of what remains, with dimensions figured; this is a facsimile of a drawing made on scale paper on the spot. It is, perhaps, hazardous to offer a suggestion on the subject of this engraving. The lower portion seems evidently intended for drapery, and the few fragments that remain are, perhaps, not wholly inconsistent with a figure of the Virgin and Child. In making this suggestion I am possibly influenced by the fact that there are persistent rumours of the existence somewhere among the caves of Beit Jibrîn and its neighbourhood of an engraving of a woman and her child—no one could say where, though I made particular inquiries. All attempts at localising stories of figures engraved on the walls of caves filtered down to the *orantes* in 'Arâḳ el-Mâ, which were the only such graffiti to which any natives I interrogated were able to point. The woman and child story (immensely exaggerated beyond anything I heard) was told to M. Clermont-Ganneau by one Yakûb Banayôt, and by him localised in a certain *Mughâret esh-Shems.* I made several inquiries after this Cave of the Sun, but got so many different answers about it that I gave up the search for it in despair. Everyone knew it well, of course, but no two agreed as to whether it was close beside Beit Jibrîn, or two hours' journey from it, west or south from it; or whether it was a small ruined hole filled up with its own débris, or an immense excavation of the Beit Jibrîn type. All this uncertainty probably means that some such figure is remembered once to have existed, and was well known, but that it was destroyed by some zealous Puritan. Returning to the Beit Leyi chapel, it should be mentioned that the panel containing the figure is 45 centimètres below the roof, and 9 centimètres above the present surface of the ground. There is a small plain cross scratched on the wall to the left of it.

CONCLUSIONS.

In the Survey Memoirs of the Palestine Exploration Fund (Vol. III, p. 266 ff.) a brief general account of the Beit Jibrîn caves is given, which contains everything till then known about them. As a discussion of the subject necessarily starts from what has already been established, an abstract of this description is here subjoined :—

A general description does for all of these caverns. They consist of chambers rudely circular and connected together (from 20 to 60 feet diameter and 20 to 40 feet high), with domed roofs having openings to the surface of the rock above. Many of the domes have fallen in. The walls are roughly cut, but sometimes dressed coarsely with a pick used diagonally. In at least two places* springs are found in the caverns. Many of the rounded chambers resemble chapels with apses to the east. Crosses and Kufic inscriptions occur in all the caves at a low level, and thus within reach. Among the inscriptions are the following, "O God, Ibn Suleiman testifies that there is no God but God," "O God, forgive Yessîd, ibn 'Omar, ibn el-Kandy." The most important, however, appears to be one 15 feet from the ground; it contains the name Salâḥ ed-Dîn, probably Saladîn. There are also shorter inscriptions. "Ya Allah," "Ya Muḥammed," "There is no God but God, Muḥammed is the messenger of God." There is said to be also an inscription in Kufic which speaks of the making of one of the caves. The crosses are of various kinds; the Jerusalem cross is amongst them. There is also a very curious rude design cut high up on the wall in the inner part of 'Arâḳ el-Mâ, where is a spring. Niches for lamps are found in many of the caves, and in others there are rows of larger niches, probably columbaria. One of the caverns north of the village [of Beit Jibrîn] has 240 of these columbaria niches, arranged in six horizontal rows round the sides of the cave. This cave appears to have been enlarged at a late period, for to the east of it is a tomb with four kôkîm in its back wall, 6 feet long. The side walls of the tomb has been partly destroyed in enlarging the cave. On the left wall of the tomb is one kôk, on the right two, one of which is a passage leading into another chamber with three loculi under arcosolia, one in each wall.† In another instance ‡ the remains of a tomb-chamber with kôkîm is visible high up near the roof in the side of one of the caverns. Evidently the excavation is in this case late, as the tomb has been destroyed in enlarging the cavern. The various indications of date in these caverns seem all to point to a late origin:—

(1) The destruction of Jewish tombs in the course of cutting out the caves.
(2) The Kufic inscription speaking of the caverns being made.
(3) The various Kufic and Christian inscriptions on the walls.
(4) The mediæval character of the sculpture in 'Arâḳ el-Kheil.
(5) The diagonal dressing on the walls in parts.

These indications do not, however, prove more than that the caves, *as they are at present*, are the work of mediæval excavators.

The above description has evidently been written in the assurance that the caves, as we see them, are the work of the early Christian inhabitants of Palestine. The same view has been adopted by Prof. G. A. Smith, and by him expanded into a chapter, which forms the eleventh of his entrancing volume on the *Historical Geography of the Holy Land*. This conception has evidently inspired such a sentence as "*Many of the rounded chambers resemble chapels with apses to the east.*" It is true there are eastward apses sometimes, and it is on the existence of such a detail that

* 'Arâḳ el-Mâ. [R. A. S. M.]

† I have not seen this cave, and cannot say which it is. [R. A. S. M.]

‡ 'Arâḳ el-Hilleil. [R. A. S. M.]

I rely for identifying No. 41 in the above list as a rock-cut chapel. But there are also apses directed northward, southward, and westward, and to all the intermediate points as well; in some chambers we have a perfect chevet of apses on all sides; so that, except in such a special case as that just cited, the existence of apses cannot be regarded as of great importance in assigning a date or a purpose to the caves. This is merely a remark in passing. I proceed now to a discussion of the five indications of date above quoted.

1. "The destruction of Jewish tombs in the course of cutting the caves." This phenomenon is unquestionable in two cases which I have seen—one in the south-east of Tell Sandaḥannah (outside the limits of the map; south from No. 59), and 'Arâḳ ez-Zagh, between Tell Sandaḥannah and Beit Jibrîn. This latter is a very extraordinary example, no less than seven tomb-chambers, with arcosolia, being incorporated with the cave, which is cut in the middle of an extensive cemetery, apparently of Seleucidan date.* The unnamed example to the north of Beit Jibrîn I must also admit, not having seen it, and having no reason to question it; but I must disallow the 'Arâḳ el-Hilleil example as not being *apropos*. There is no doubt that we have here a succession of bell-chambers, and that near the roof of one a tomb with kokîm is broken into; but an examination of the rock shows that there are pickmarks in the surface of the chamber, and pickmarks in the tomb and kokîm, but no pickmarks in the fractured edges of the broken rock wall between the two. The fact here obviously is that both co-existed, with a wall between them too thin to stand permanently; the two are broken together by a natural accident, and there is nothing to show that the tomb is not actually later than the cave. It is an entirely independent chamber, with an independent entrance. The other three caves may at once be conceded to be later than the tombs incorporated with them, but this proves nothing more than that the habit of cutting caves continued to a comparatively late date, a fact already taught us by the Beit Leyi chapel.

2. "The Kufic inscription speaking of the caves being made." When this inscription is found and published in facsimile, then we shall be able to judge of its importance. In the survey volume it is only "*said* to" exist, and in the *Zeitschrift* of the Deutsche Palästina-Verein, vol. xix,

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* There are some Roman-looking graffiti in this cave (*see* Pl. 101).

pp. 112, 113, the definite statement is made that careful special search was made for both this inscription and for that containing the name Salaḥ ed-Dîn, and that neither could be found.*

3. "The various Kufic and Christian inscriptions on the walls." These of course have no more to do with the date ot the caves, even in their present form, than have the initials blackened by the smoke of the candles of modern tourists. It might be argued that as some of these inscriptions are cut too high up to be accessible except with a ladder, that therefore it is more reasonable to conclude that they were executed while the cave was still in process of excavation, and at the stage when there was a foothold at a convenient distance from the position of the inscriptions. This argument applies with especial force to the great cross cut about thirty feet up on the wall of No. 16. But it is an argument that can easily be met, for both Christian crosses and Moslem inscriptions are found, sometimes in the same cave, in inaccessible situations. They cannot possibly be contemporary; therefore one or other *must* have been cut with the help of a ladder; and if a ladder be an admissible element in one class of inscriptions, it is admissible in the other.

4. "The mediæval character of the sculpture in ʿArâḳ el-Kheil." It will have been already deduced by the reader that in my opinion the date of the caves is earlier than that hitherto generally assigned; and it was with considerable interest that I visited ʿArâḳ el-Kheil to examine the sculptured friezes there; for there can be no question of their mediæval character; and mediæval ornament *in relief* necessarily dates a chamber. A moment's thought will show that the indications of date afforded by incised ornament are much less definite. I must confess that I was surprised to find that all my predecessors had been wrong in describing the ornament as in relief. It is in *cavo-relievo;* that is to say, it does not project beyond the surface of the surrounding wall, but the background has been cut away so that the design appears to stand out. It is quite evident that the Crusaders,

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* By Van Berchem. His paper is entitled *Die Inschriften in den Höhlen von Bēt Dschibrīn.*" The sentences containing the main facts about these inscriptions may thus be translated:— 'The contents of these graffiti, which can with difficulty be dated on account of their characterless nature, are for the most part unimportant—merely Arab names and pious sentences. They all exist in the two caves, ʿArâḳ el-Mâ and ʿArâḳ el-Fenish. . . . . All other caves visited by me had no inscriptions—at least nothing evident. Of the alleged inscription concerning the making of the cave, also that of Saladin. I found nothing."

who were powerfully established at Beit Jibrîn, adapted 'Arâķ el-Kheil for some purpose of their own,* and beautified it by turning a probably rude entrance into a handsome Romanesque doorway with chevron (not dog-tooth, as it has been previously described) moulding, and by adding these friezes to a chamber whose walls were previously smoothed down—for the tooling on the wall of this chamber is very different from that elsewhere. The sculpture in 'Arâķ el-Kheil, therefore, has no more importance than the crosses and graffiti. And I may here mention that a cross in 34, which I have already described as being in relief, is also in *cavo-relievo*, though the background taken away is of so considerable extent as at first to deceive the eye. There is, however, an edge all round the space enclosing the cross.

5. " The diagonal dressing on the walls." This is probably cited to compare it with the Crusading dressing of masonry, the existence of which was established by M. Clermont-Ganneau. But no deductions of any value can be drawn from such a comparison. The dressing on masonry is fine, close, and apparently executed with a comb; that on the walls of the chambers is coarse, wide, and executed with a pick. The fact that both are diagonal is a mere accident, or if it means anything, implies merely that diagonal strokes were found more convenient to execute by two different classes of workmen.

The total result, therefore, of the inquiry so far has been that three particular caves must be later than certain Seleucidan tombs. Against this may be set the fact that certain caves have been found concealed by ancient débris. One notable example was at Sandaḥannah, where a series of three small chambers, one of them a stepped-bell (without parapet) was found under an accumulation, the bottom stratum of which could not be later than 500 or 600 B.C. A plan and section of this cutting (which, except for its circumstances, is not specially interesting) is given on Pl. 101.

On the other hand, we are not in the possession of knowledge to justify us in assigning a true arch, if found in Palestine, to a pre-Seleucidan period; and if so, caves, or portions of caves, like Mughâret Sandaḥannah, which display passages roofed with a true arch, must be brought down to that date. Possibly this might not be the case with

* May this not have been a *stable*, a dim recollection of which survives in the modern name of the cave [Cave of the Horses]?

narrow passages, but there is a magnificent wide arch spanning a chamber close to one of the entrances in the complicated souterrain (No. 1 of the Sandaḥannah series) which I can scarcely believe to be older. It must also be remarked that the square clunch blocks of which these vaults are formed were shown by the excavations at Tell Zakarîya and Tell Sandaḥannah to be characteristically Seleucidan.

The only other external indications (as they may be called) I have noticed are :—

(1) A cave at Khurbet Medawwir, which, having been converted into a cistern, is coated with plaster containing large sherds of Roman pottery. This plaster (which bears a cross cut on it) obviously has no bearing on the date of the cave itself.

(2) A Greek inscription in the great souterrain at Zakarîya, of Christian character.

(3) The inscription of Simê in es-Sûḳ at Sandaḥannah. As this, by the most probable reading, contains a prænomen indicated by an initial, it must therefore be of the Roman period. But both (2) and (3) are mere graffiti, and have no more to do with the date of the caves than have the inscriptions in Cufic characters.

A curious and striking fact is the absence of a connexion between the existence or otherwise of caves in any place and the demonstrable date of associated surface débris. The following table of cave sites will make this clear (P^1, P^2, denote the early and late Pre-Israelite periods: J the Jewish, S the Seleucidan, R the Roman, and A the Arab epochs) :—

Tell Zakarîya	—	P^2	J	S	[R]	—	Many caves.
Tell eṣ-Ṣâfi	P^1	P^2	J	S	R	A	Unimportant.
Tell ej-Judeideh	P^1	—	J	S	R	—	„
Tell Sandaḥannah	—	—	J	S	[R]	—	Many caves.
Khurbet ʿAtraba	—	—	—	—	R	—	„
Khurbet Dhikerîn	—	—	—	—	R	—	„
Khurbet el-ʿAin			no deposit				„
Khurbet ed-Druseh ..	—	—	—	—	R	—	Unimportant.

At first sight this would seem to bear out the evidence of the graffiti and other details already discussed, and relegate the caves to the Roman period, for this is the only period common to the series. But the two most extensive groups in the above list—those at Zakarîya and Sandaḥannah —are associated with practically insignificant Roman remains (as is indicated

by the square brackets). And we repeat, one of the Sandaḥannah caves is demonstrably older than 500 B.C.

What then is the significance of this fact? Several possible explanations present themselves, namely:—

(1) The caves are older than the oldest surface deposit.

(2) The use of the caves extends over a long time, embracing several periods.

(3) The use of the caves belongs to one period, and is to be assigned to the inhabitants of the nearest place showing surface deposit of that period; or

(4) The caves are entirely independent of all surface deposit, and belong to a troglodyte population, different from the population responsible for the surface deposit.

It is impossible to dissever a discussion of these four suggestions from the question, which has so far been scarcely touched upon, of the purpose for which these caves were cut out. Before turning to this subject, I would briefly indicate two questions from the solution of which some idea of their period might be arrived at.

The first question is one which I commend to the attention of those who are better geologists than myself: I can best put it in the form of a concrete example. The amount of matter cut away from ʿArâḳ el-Mâ must have been very considerably over a million cubic feet. The hill containing this cave is completely bare, and shows no mound of rubbish in the faintest degree corresponding to this immense quantity of material; the same is true of every other rock-cutting I have seen. How long would it take for the winter rains to wash away and efface the traces of these immense quarry works?

The second question refers to the columbaria and the date of their employment. As loculi interfere with crosses in the great pit at Khurbet el-ʿAin, clearly the adaptation of this excavation as a place for cinerary urns must post-date the early Christianity of the neighbourhood. Were it not for this piece of evidence, we might be tempted to seek in the columbaria of Palestine the key to the mystery of the absence of pre-Israelite interments; I confess that till I had found this most instructive pit, I had often felt it possible that this Roman method of disposal of the dead might really be a survival or rather revival of a much more ancient practice, to which the pit-columbaria of the neighbourhood of Beit Jibrîn were the witnesses. This attractive theory must, however, be abandoned *so far as*

the bell-shaped columbaria are concerned; and it is rendered still farther inadmissible by the conclusion to which I gradually came, that, except at Khurbet ed-Druseh, and possibly one or two others, there is no bell-shaped columbarium in which the funeral accessories are not *demonstrably* a later adaptation. They are cut everywhere *within reach;* in some cases they are unfinished, showing us loculi in the making; and original features are sometimes interfered with. The passage columbaria, found in such numbers in Tell Sandaḥannah, are less easy to dispose of; except in the case of es-Sûḳ, whose arrangements are probably laid out under western influence, judging from the architectural details. The others have all a uniform character. They are rectilinear (straight sided and flat-roofed), being in fact rather wide passages; the loculi are square, not round-headed as in *es-Sûḳ;* and many of the columbaria are members of systems from which it is impossible to dissociate them in date. If the systems be ancient, so are the columbaria, and cremation was practised at a more ancient date in Palestine than has hitherto been supposed. If the columbaria cannot be dated further back than the Roman period, the systems with which they are associated must also belong to this period.

The general purpose of the excavations must now be considered. Little need be added to the remarks already made on the subject of specialised chambers: columbaria, olive-presses and filter-chambers are of self-evident purpose. To these the "stable" in one of the Sandaḥannah caves may be added, though this assignment of a purpose is not quite so certain as in some of the others.

A large number, especially of the single bell-chambers, with or without steps, must be intended for cisterns; indeed, this is demonstrated in some cases by the rope-marks to be seen frayed in the soft limestone round the mouth. These bells, cut in the sides of the hill, were the water-stores of the towns built on the top. The steps were provided in order that they might be descended and cleaned periodically; for mud would necessarily wash in with the winter rains that filled the cistern, and if not removed would in time choke it up. It must be remarked that these cisterns do not now hold water after the heavy winter rains, except the comparatively small quantity that happens to fall directly through the mouth. Probably some artificial catchment system was employed at the time when the cistern was in use: as, for instance, temporary dams, arranged V-wise, with the mouth of the cistern in the apex and the arms pointing uphill.

Cisterns would be required at all periods of a town's history, and there was no special reason why the obviously convenient form of an expanding chamber with a narrow neck, once established, should be departed from. Consequently we may expect to find plain bell-shaped cisterns associated with surface débris of any period.

Nearly similar in purpose and design would be the grain and fodder stores. Caves are often used for this purpose still, and in Palestine we so often see the past in the present, that it is not unlikely that we have here a survival of ancient custom. Clearly, as fodder and grain cannot be drawn out like water, the caves for their reception must be either sufficiently shallow so that if entered they can be left, or else provided with steps to the bottom. We then see a purpose for such stepped bell-chambers as cannot be treated as cisterns. The remarks above made as to the date of cisterns applies also to grain stores.

Apart from the columbaria, I do not think there is any evidence that the caves under discussion had a sepulchral purpose. They contain nothing that can be compared with the kôkîm or arcosolia of ordinary rock-tombs, and such cupboards as some of them possess are wholly unsuited for depositing a body within them.

In exploring some of the caves, it is impossible to resist a strong impression that they were places of assembly, probably for some religious purpose: though it is equally impossible to lay hold of any definite proof of such a theory. Nowhere is this so strongly suggested as in the great system at Khurbet el-ʿAin. We have a large hall, capable of holding a large crowd of people, gloomy, but still light enough to see any rites that might be performed; side chambers, carefully secured, that might easily be considered as store-rooms or vestries; a cupboard with strong and elaborate fastenings, which attest the value of the object kept within it, though this must have been of small size, as the cupboard is not large—might it not be some sacred image, possibly with magical or mechanical properties?—and a recess, that seems to have had a curtain or cover hung in front of it, where there might easily be supposed to be a picture or figure to be seen by the initiated only. The wooden partitions which divided up this chamber may possibly be of later origin and be relics of its adaptation as a cattle stall. And what are we to make of the "raised passage" found in this as in some other caves? I can think of nothing better than that it was a device for the performance of some priestly fraud or other. The

passage begins in an obscure and easily concealed recess, from which the *profanum vulgus* could without difficulty be excluded, and ends high up in an inaccessible spot in the wall of a large chamber, where a considerable congregation of people might be assembled. It would not make a great tax on the ingenuity of a priesthood to devise, with such an apparatus, oracles and even theophanies that would be as convincing to the lay worshippers as is the miracle of the Holy Fire to the modern Russian pilgrims in the Church of the Holy Sepulchre.*

It must be at once admitted that in the above paragraph I have given play to imagination, for there is no evidence known to me that any such rites took place in caves in Southern Palestine. But I may fairly claim, I think, that this reconstruction of possible rites takes account of every suggestive feature in the cave at Khurbet el-ʿAin, and covers every requirement in a way that no other explanation that I can devise is able to do. I hope that these words will have the effect of making this cave better known to archæologists. Many have visited and described the Beit Jibrîn and Deir ed-Dubbân caves, but no book known to me makes the slightest reference to this extraordinary excavation, which, to me at least, was by far the most interesting of all the caves I visited.

If there be any truth in this hypothesis, then the cave is certainly pre-Exilic in date, and probably pre-Judaic, for no later religious system would be served by such an excavation. A less direct argument might be used to corroborate the conclusions at which we arrived as to the religious purpose of this particular cave. A cave comparable with it in many details has been already described (No. 34, p. 248). When first I entered the latter excavation, the analogy between it and that at Khurbet el-ʿAin struck me at once, and further examination convinced me that it had been cut for a similar purpose, whatever that might have been. Several details, notably the seeming altar on the eastern side, suggest a religious purpose. There is no cross on or near the altar itself, which fact (taken into consideration with the plan of the whole cave) forbids our regarding it as Christian in origin; but numerous crosses have been cut on the walls

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* A more prosaic purpose has suggested itself to me, namely, that these raised passages were simply standing grounds for drawing water. To this there are two objections: first, they were nearly always creep-passages, and hence would not be convenient for carrying water along; and, secondly, there are never rope-marks on the threshold of the raised opening.

of the cave, to all appearance subsequently to its original excavation. We know how in other countries Early Christians often attempted to consecrate a place defiled by the rites of previous religions by affixing thereto the symbol of Redemption : and such I take to have been the case in this cave at Sandaḥannah.

Once again we are led to Khurbet el-ʿAin by the considerations in the preceding paragraph. We have already described an immense stepped bell-chamber which has certainly been occupied by Christians, and subsequently to them has been adapted, by people who practised cremation, as a columbarium. Incidentally this shows that the Christianity, whose traces we find on the walls of the caves, is of the earliest period. But the pit is here once more referred to, as it seems possible to illustrate the practice of Christianising sites to which a non-Christian tradition had previously been attached. It is not a little remarkable that at the mouth of this cave the famous solar symbol, the swastika, should be faintly traceable.

Another example of a cave possibly intended for a religious purpose—though of a different type to all the others here described—is an interesting chamber forming a member of a much ruined group a little to the south of No. 59. This cave is a rectangular chamber 6·92 mètres long, 5·45 mètres across, with a flattish barrel-vaulted roof. The height of the chamber is 2·35 mètres to the spring, and 3·26 mètres to the apex of the vault. Along the base of the spring runs a moulded cornice, with dentils on the northern side (the orientation of the long axis of the chamber is N.W by W. and S.E. by E.). It seems to be a public hall of some kind, and is the only place in the most remote degree resembling a *temple* that is to be seen on Tell Sandaḥannah. Such I conceive it to have been.*

Guérin and others, who had visited some of the Beit Jibrîn and Deir ed-Dubbân caves, have suggested the possibility that they were originally mere quarries adapted later for dwellings or other purposes. To this there are several practical objections. The final form of such a quarry would be rectilinear, not curvilinear, in plan and section. The stone is too bad to be

* It must be confessed that in the great heap of column-drums that we find cast down into one of the chambers of No. 56, there is indisputable evidence that *some* large pillared building, now wholly destroyed (apparently with intention), once stood on or near the Tell. There is, however, no proof that this was a temple. The drums are plain, cylindrical, not fluted, and there is no carved capital or other evidence of the *order* to which the building belonged.

wanted in such enormous quantities. And the shape of the chamber—a deep pit with a hole in the top, through which men and materials would have to be laboriously lowered and drawn up as in a mine—is unnecessarily inconvenient for a quarry, which would naturally be cut backwards from the surface of a hill side, and not downwards from its top. Of course certain caves may be explained as quarries, just as certain others may be explained as cisterns or grain stores: but neither the one explanation nor the other will fit all cases.

So far we have endeavoured to solve the riddle of the caves by an examination of the remains themselves. It is now necessary to seek light in another direction, and to inquire whether Hebrew literature has any information to give us upon the subject.

There is not wanting evidence that they attracted the attention of Hebrew writers, and there are many allusions to "pits," "dens," and "caves," which would be unintelligible if the excavations that we are studying had no existence. Except in a cistern-using country, where would the convenient pit be found by Joseph's brethren* temporarily to get rid of their to them troublesome relative (a pit that would require to be so shallow that Joseph's fall therein would not kill him, and yet so constructed that he could not get out without assistance, conditions exactly satisfied by a small bell-chamber)? Of the same kind, probably, was the "great pit" into which the body of Absalom was cast.† We also learn that "pits" existed as a danger to the property of cattle-owners; provision for recompense for loss arising in this way is made in Exodus xxi, 34. and an accident of some such kind is used by Christ as an illustration (Matthew xii, 11). These allusions to pits are, however, vague. We have elsewhere much more definite references, giving us, first, proofs of their artificial nature, secondly, a hint of the purpose for which they were dug, and thirdly, evidence of their high antiquity.

We have already referred to the probability of many of these excavations being cisterns; and we find such pit cisterns referred to more than once. Thus Jeremiah, xiv, 3, speaks of nobles sending "their little ones (or, inferiors) to the waters: they come to the pits, and find no water." Such a pit, when not properly cleaned, would have a deep stratum of mud on the bottom; and in the cistern at Zakarîya (No. 2,

* Gen. xxxvii, 20. † 2 Sam. xviii, 17.

p. 215), which had a plastered wall, marked with many water-lines, this sedimentary deposit had left its trace on the wall in the shape of a black band nearly a foot in depth. There can be little doubt that it was into such a carelessly kept cistern that Jeremiah was cast (Jer. xxxviii), at the bottom of which was mire in which he sank.

The cave of Machpelah is the solitary example of a cave used for sepulture, if we exclude such references in later times as unquestionably refer to specially formed rock-cut tombs of the ordinary kind. In our total ignorance of the internal arrangements of Machpelah, it is impossible to say whether it was in any way comparable with the caves to which we have been devoting our attention. Excluding this doubtful instance, we are able to say that so far as any argument can be drawn from silence, the silence of the Old Testament bears out the conclusions that we had already arrived at, that our caves were not, as a general rule, places of burial.

The Old Testament, however, does provide us with another explanation, possible in the case of many of these excavations, which perhaps would not have occurred to a student who did not call in its aid: namely, that they were used as a trap for wild beasts. Thus Ezekiel, speaking of the princes of Israel under the likeness of a young lion, says,* "The nations also heard of him; he was taken in their pit." Again we read in Isaiah xlii, 22, "This is a people robbed and spoiled; they are all of them snared in holes, and they are hid in prison-houses." A concrete example of a lion captured in such a trap seems to have been the animal slain by Benaiah, 2 Sam. xxiii, 20.

Caves have in all countries been used as hiding-places; and there is ample illustration of this in the Old Testament. Lot, who "feared to dwell in Zoar" (Gen. xix, 30); the five kings at Makkedah (Josh. x, 16); David, in Adullam (1 Sam. xxii, 1, etc.); the hundred prophets, from Jezebel (1 Kings xviii, 4), are examples that occur to the mind immediately. More striking still, the Israelites hid from the Philistines "in caves, and in thickets, and in rocks, and in holes, and in pits" (1 Sam. xiii, 6)—a fact well known to the Philistines, who made contemptuous reference to the "holes" where the Hebrews had hid themselves (1 Sam. xiv, 11). And lest an objector should feel justified in saying that there is no proof that

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* Ezek. xix, 4.

these caves, pits, and holes were not mere natural hollows, we are able to point to Judges vi, 2, which definitely asserts that "because of Midian the children of Israel *made them* the dens which are in the mountains, and the caves, and the strong holds." This at the very least proves that at an early time certain caves and dens, obviously artificial, existed in the land of Israel, southward (so as to be within the possible sphere of Midian's activity), which could not be explained as cisterns, and to which the tradition attached that they had been made in the time of the Judges for refuges. The curious reference to the pit "which Asa the king had made for fear of Baasha king of Israel," in Jeremiah xli, 9, seems to inform us of a later example of the same practice. This passage, we may remark in passing, supplies us with an example of a subterranean store-chamber. Verse 8 reads, "But ten men were found among them that said unto Ishmael, slay us not, for we have stores hidden in the field of wheat, and of barley, and of oil, and of honey." This can hardly mean that they were merely buried: they were probably enclosed in some rock-cut receptacle.

One question remains, at once among the most difficult and the most interesting of all the questions relating to the caves: is there any evidence of their being the work of a troglodyte population more or less distinct from the inhabitants of the surface towns and villages?

When all the specialised chambers are excluded, and those to which one or other of the purposes above detailed can reasonably be assigned are counted out, there still remains a considerable number of chambers which it is least far-fetched to regard as living rooms. And the fact that certain doorways in the great souterrain at Zakarîya are arranged to be bolted on the inside, indicates that people were temporarily or permanently established inside the cave.

I confess that the somewhat mystical speculations of St. Jerome in his commentary on the opening verse of Obadiah are obscure to me: "Unus ergo atque idem tribus nominibus appellatur, Esau, Edom, Seir; posseditque eam regionem, quæ nunc Gebalena dicitur, et in finibus est Ἐλευθεροπόλεως, ubi antea habitauerant Horræi, qui interpretantur liberi, unde et ipsa urbs postea sortita vocabulum est." This means that the Edomites inhabited a country of which the Horites had been aborigines; "Horites" means "freemen," and their city still bears the name Ἐλευθερoπόλις after this name. If by Gebalena and Ἐλευθεροπόλις Jerome means the site now occupied by Beit Jibrîn, he is allowing his fancies to run away with

him—for by no sort of geographical jugglery can we bring Mount Seir, the seat of Horites and Edomites, into the district of Beit Jibrîn.

But it does not necessarily follow that the Horites were the only troglodytes of the Bible country. I do not know whether caves, such as the Horites might have dwelt in, have been explored in Mount Seir, but I question whether, if examined, they would be found to be more suited to troglodytes than are the Beit Jibrîn caves. If we examine some of the larger caves with a view to testing their suitability as permanent residences for a cave-dwelling clan, it cannot but be felt that they seem more fitted for that than for any other purpose. I have already said that the existence of internal fastenings in the great souterrain at Tell Zakarîya shows that it had been made for persons who required temporarily or permanently to shut themselves in; that is to say, it was made either as a hiding-place or as a cave-dwelling. I doubt, however, if a tribe making a temporary hiding-place would fill it so full of pitfalls and ramifications as this cave is filled. They would be as likely to inconvenience and endanger the pursued as the pursuers. Nor would such a cave, presumably cut all at one time, be laid out so entirely regardless of design. The difficulties are diminished by regarding it as the home of permanent cave-dwellers, who cut out new chambers whenever they required them in unoccupied parts of the rock, without reference to unity of design. Knowing their cave thoroughly from infancy, they would not be perplexed by the traps, which might very easily cause serious consequences to those who visited the cave only when occasion required.

The Zakarîya souterrain is not so good an example as are some of the Sandaḥannah systems, of caves suitable for a permanent population. Such a cave has to provide facilities for securing all the necessaries of life, and must be capable of standing a siege for some time. We must have a sufficient number of rooms for living, storage of food and water, and probably for cattle-stabling as well; we must have presses for extracting the oil, which forms so important an article of food in the East; and we must find means of disposing of the dead so that they do not become a source of danger to the health of the living. Such a souterrain as No. 1 in the Sandaḥannah series completely answers all these necessities.

I have referred to the disposal of the dead. This reference I make with a good deal of hesitation, as it implies an assumption that the troglodytes, if such persons really existed, practised cremation and made

used of columbaria. But I see no more satisfactory way of accounting for the facts of the case. Incorporated with several souterrains in Tell Sandaḥannah are columbaria. These are chambers with a definite character of their own, being rectilinear in plan and section, whereas the associated chambers are essentially curvilinear. No such chambers exist which are not columbaria, and the loculi (with perhaps one or two insignificant exceptions) are confined to these chambers. Therefore the rectilinear columbaria were originally made for the purpose of columbaria, and are not later adaptations as are the bell-shaped columbaria; for if they were later adaptations we should probably find one at least which had escaped the process, and it is inconceivable that the adaptation would be confined to chambers of a definite plan. But if the columbaria were made by inhabitants of the surface towns, to what purpose did they add a complexity of useless chambers to their excavation? To this riddle I can see no answer; but if the columbaria be regarded as the place of disposal of the dead of troglodytes, who lived in the adjoining chambers, their purpose and surroundings become clear at once. Of course, such a cave as es-Sûḳ is to be regarded, in my opinion, as a town cemetery belonging to the inhabitants of the city on the top of the hill, and made after they had learnt cremation from their cave-dwelling neighbours.

In conclusion therefore the whole subject may thus be summed up:—

(1) The district round Beit Jibrîn, within a radius of about fifteen miles, contains an innumerable number of artificial caves, consisting of chambers and systems of chambers, with from one to sixty chambers in each system.

(2) The date of a few of these caves is demonstrably later than the Seleucidan period; a few others are demonstrably earlier than the end of the Jewish monarchy; and there is Scriptural evidence that similar caves existed at an earlier date still.

(3) Certain chambers are prepared for special purposes, as cisterns, store-chambers, etc. These being required at all periods, might be of any date, and as there is no reason why a plan once settled and found convenient should have been altered, there is no means of dating such chambers.

(4) Other purposes, as places for religious rites, filters, traps for wild beasts, prisons, quarries, etc., may be inferred with greater or less probability from the character of the chambers or from Scriptural references to them.

(5) Caves were prepared and used as places of refuge.

(6) There is reason to believe that other caves contained a troglodyte

population, not improbably distinct from the inhabitants of the towns and villages on the surface, and possibly aboriginal.

(7) There is archæological evidence from which it is possible to infer that cremation was practised by these troglodytes, and perhaps by them taught (with the use of columbaria) to the inhabitants of the surface. This revolutionary inference, if accepted, will transfer the credit of the invention of columbaria from the Romans to an obscure cave-dwelling tribe in Palestine.

R. A. S. M.

GENERAL INDEX.

P

Q

R

S

T

U

V

W

Y

Z

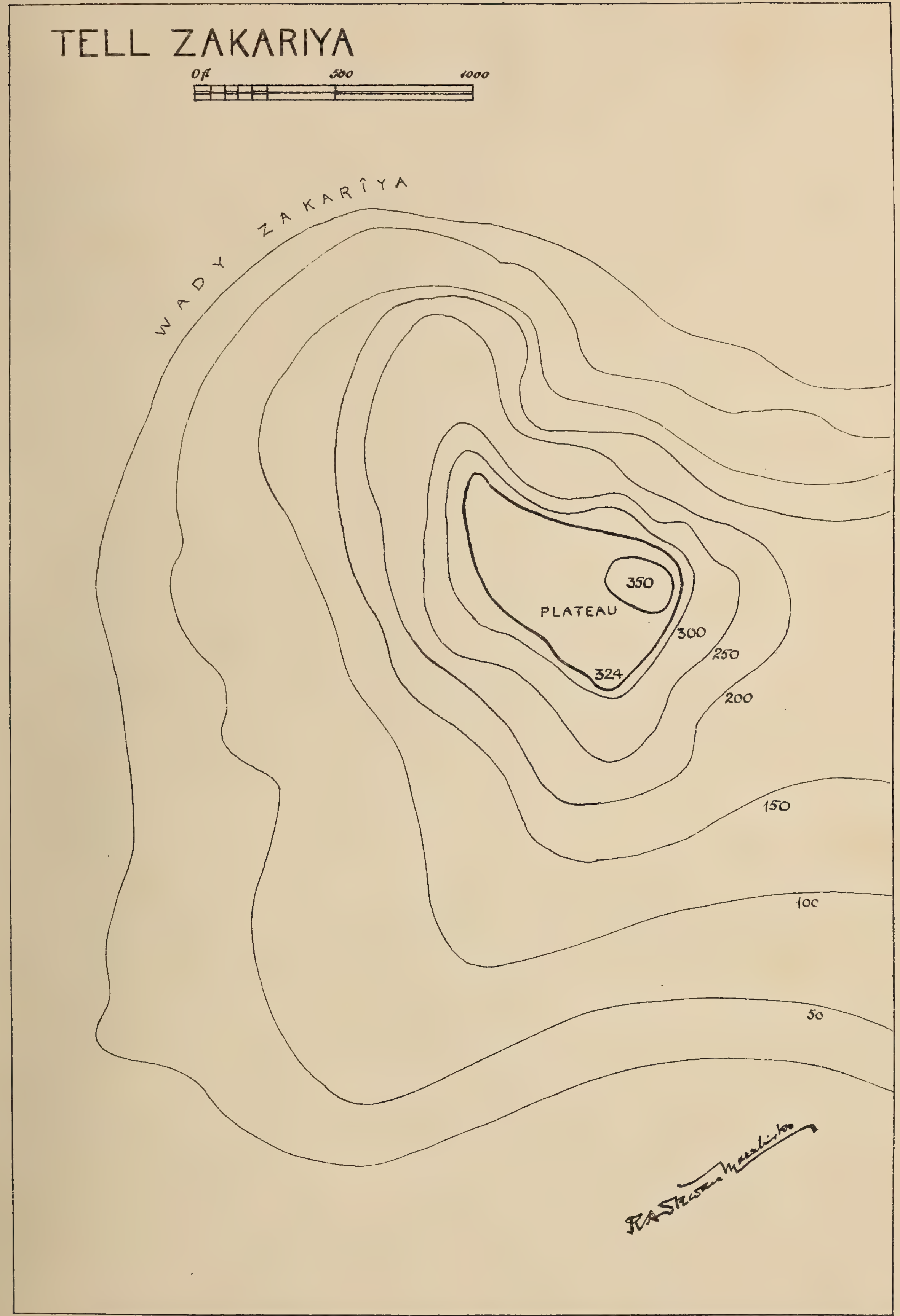
INDEX OF GREEK NAMES.*

* See also General Index, *s.v.* "Inscriptions," and pp. 132–134.

INDEX OF HEBREW WORDS.*

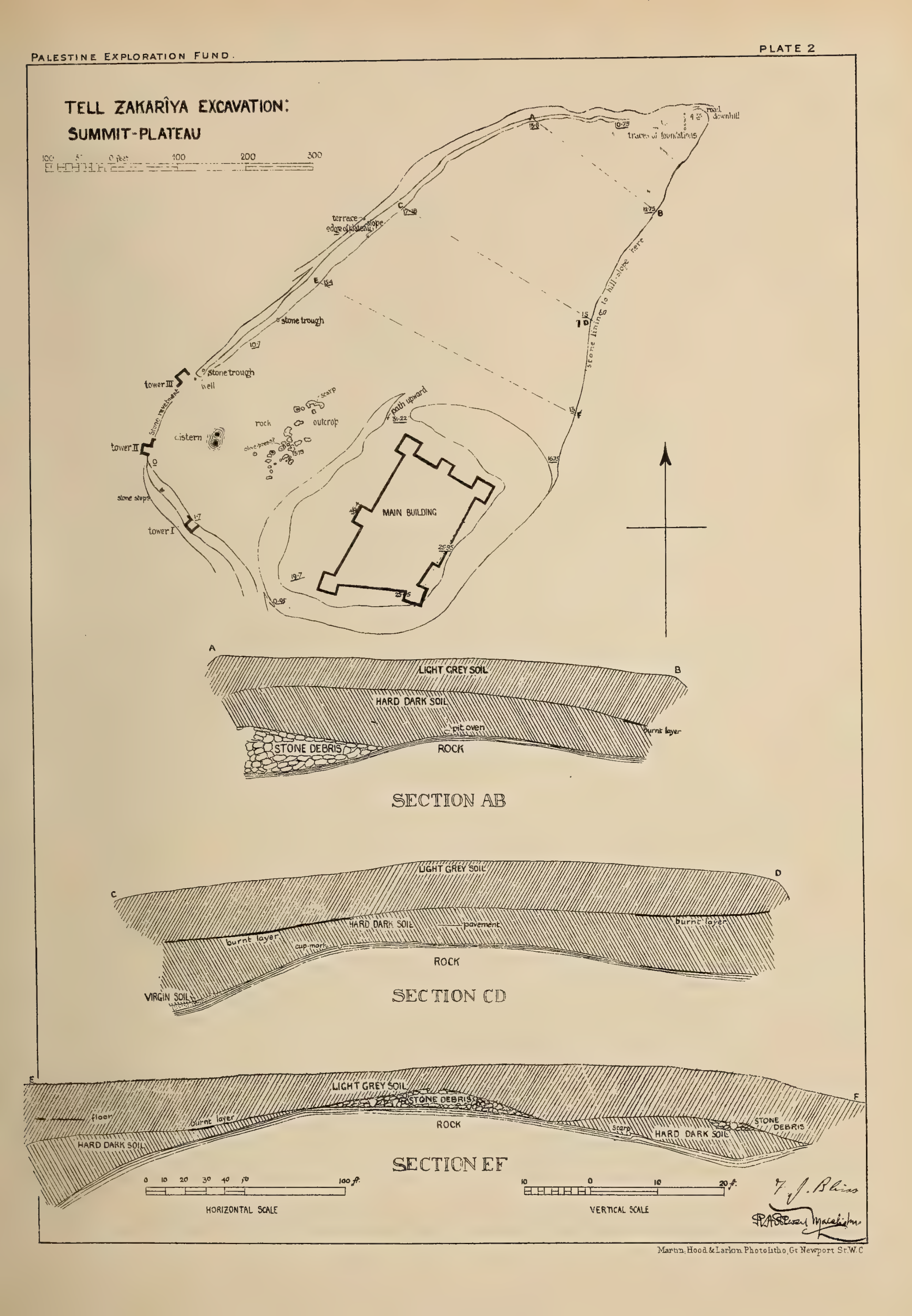
* See also General Index, *s.v.* "Inscriptions."





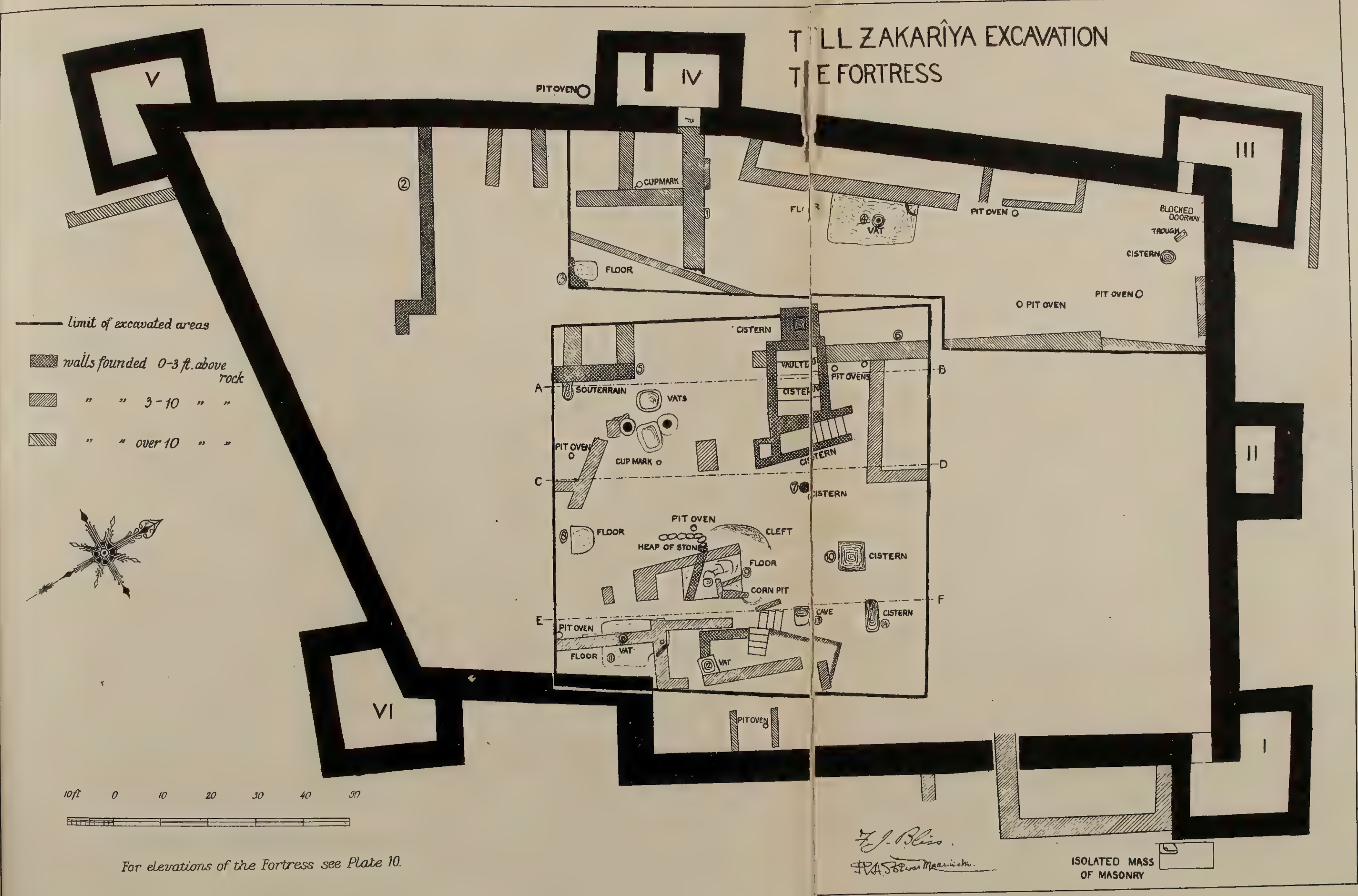
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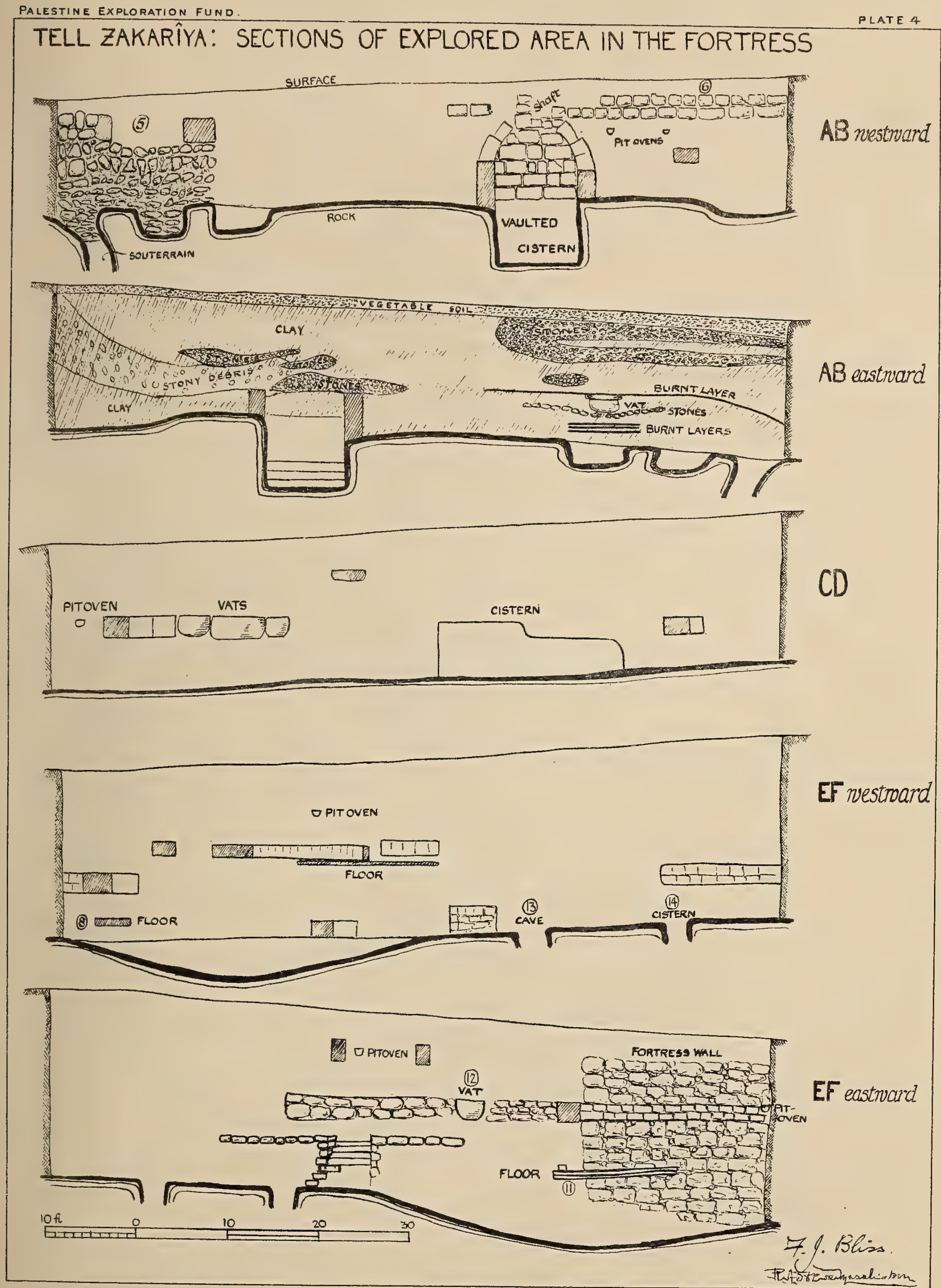




For elevations of the Fortress see Plate 10.



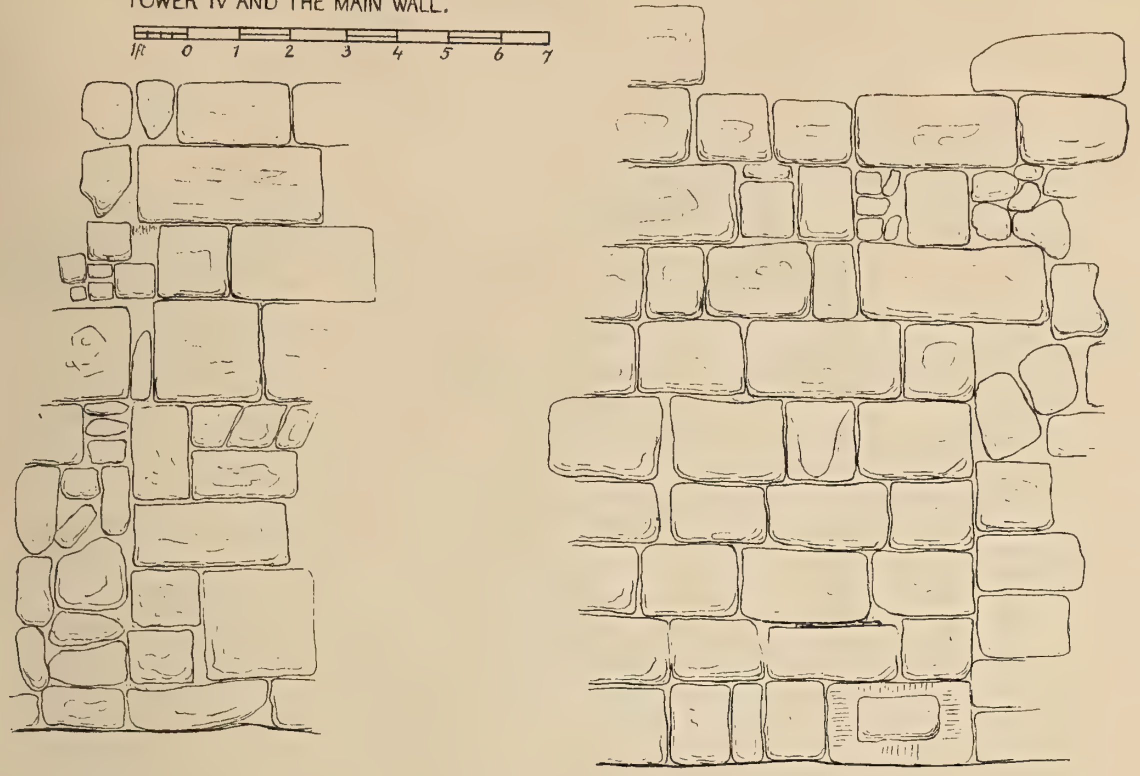
TELL ZAKARÎYA: SECTIONS OF EXPLORED AREA IN THE FORTRESS





TELL ZAKARÎYA EXCAVATION

MASONRY AT THE JUNCTIONS OF TOWER IV AND THE MAIN WALL.



ELEVATION OF THE S.-W. SIDE (OUTER FACE) CENTRAL N.-W. TOWER (No. 4)

12" 6" 0 1 2 3 4 5ft

Level of doorsill

not excavated

Level of large pit oven

ROCK

conjectured line of rock

F. J. Bliss.

R. A. Stewart Macalister

Martin, Hood & Larkin, Photolitho, Gt. Newport St. W.C.



TELL ZAKARIYA EXCAVATION

VAT-SYSTEM

D
B
f
d
c
groove
e
b
A
C
a
PIT OVEN
PIT OVEN
F
i
(under)
h
evidences of cement floors found every-where except in this area
g
E
CISTERN
PLAN

b c d
SECTION AB

b c d
Level of floor
e f
SECTION CD

g h
SECTION EF

SCALE FOR PLAN
10ft 0 10 20 30
1 mtr 0 1 2 3 4 5 6 7 8 9 10 11

SCALE FOR SECTIONS
1ft 0 1 2 3 4 5 6 7 8 0
1 mètre 0 1 2

R.A.S. Macalister
F. J. Bliss

Martin, Hood & Larkin, Photolitho, Gt Newport St, W.C.



TELL ES-SÂFI

100 50 0 100 200 300ft



TELL EṢ-ṢÂFI EXCAVATION. GROUNDPLANS. (*NORTH-EAST PLATEAU, CENTRAL STRATA*)

g Y

14

C

7

6

B

8

f

e

d (under)

c b a

Z Z

4

13

9 3

A

2

1

I Y

10 ft 0 10 20

debris on stone floor

corn-pit

14

15

7

C

11

6

B

5

8

11 11

11

11

12

10

13 11 11

9 3

A

4

2

1

II

F. J. Bliss

R. A. Stewart Macalister

surface

14 6 C B a 4 3 1

7 d

[depth of g]

rock

SECTION YY

SECTION ZZ

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VIEW OF SUPPOSED "HIGH PLACE" FROM THE NORTH.

VIEW OF SUPPOSED "HIGH PLACE" FROM THE SOUTH.



TELL EJ-JUDEIDEH EXCAVATION

SUMMIT-PLATEAU

WEST GATE

A B C D E F G H I J K

1 2 3 4 5 6

S. GATE

N. GATE

EAST GATE

CISTERN

PAVED CAUSEWAY

FOUNDATION

RIDGE

CAVE

PLAN

SURFACE

ROCK

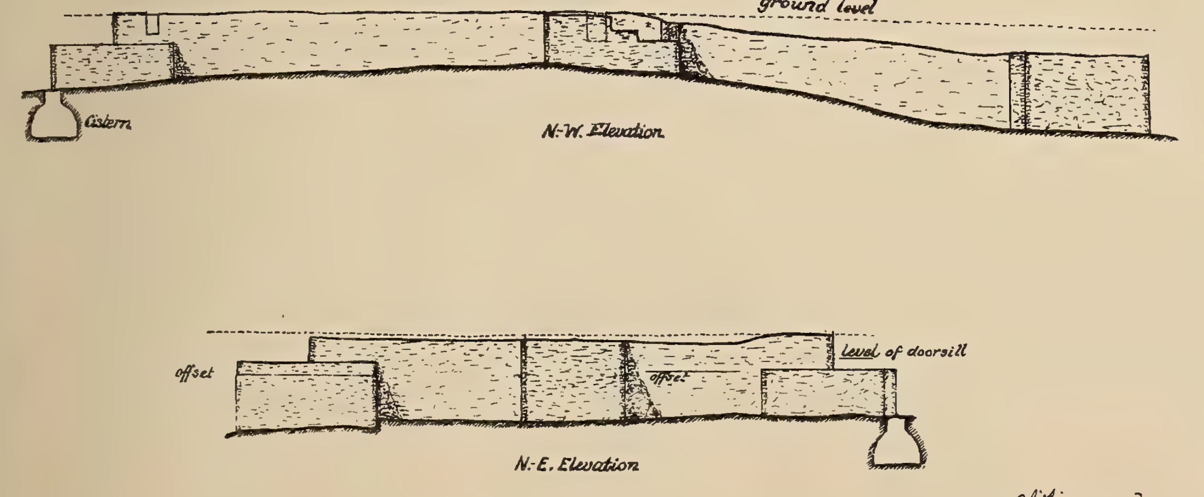
SECTION

HORIZONTAL SCALE

VERTICAL SCALE

TELL ZAKARÎYA EXCAVATION

ELEVATIONS OF THE FORTRESS



Martin, Hood & Larkin, Photolitho, Gt. Newport St. W.C.



TELL EJ-JUDEIDEH EXCAVATION

DETAILS OF THE WALL

10 ft 5 0 10 20

1 mét 0 1 2 3 4 5 6 7 8

Surface
Offset
Débris
Rock

i

Debris

Rock

ii

Surface

Rock

iii

SPECIMENS OF MASONRY

a
b

section on ab

EAST GATE

c
d

still removed

WEST GATE

f
g
h
e

frag^t of mosaic

section on cd

NORTH GATE

section on ef

elevation of gh

elevation from south

SOUTH GATE

1 foot

25 50cm.

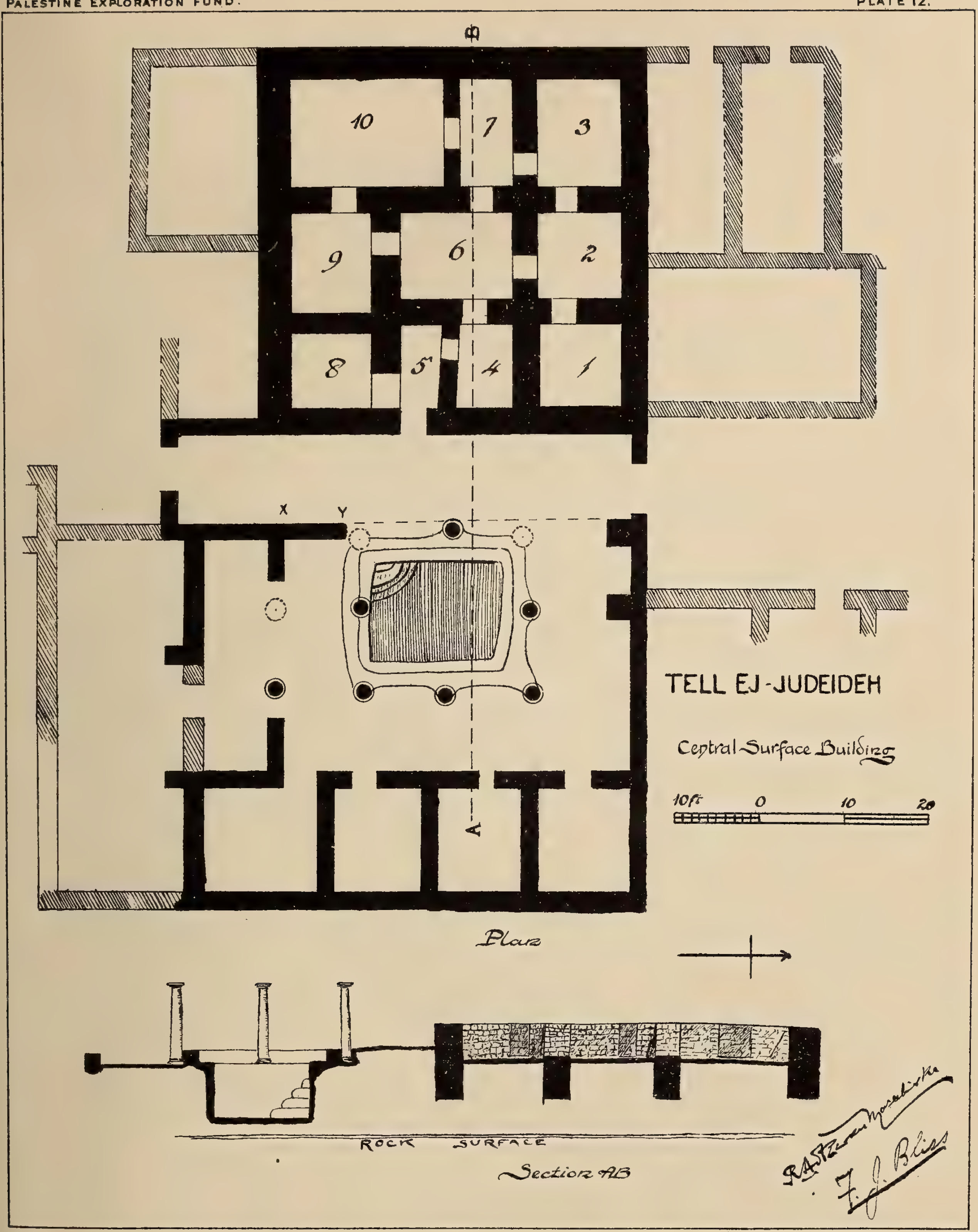
a
b
c
d

MISCELLANEOUS FRAGMENTS

F. J. Bliss.

Martin Hood & Larkin, Photo Litho, Gt. Newport St. W.C.



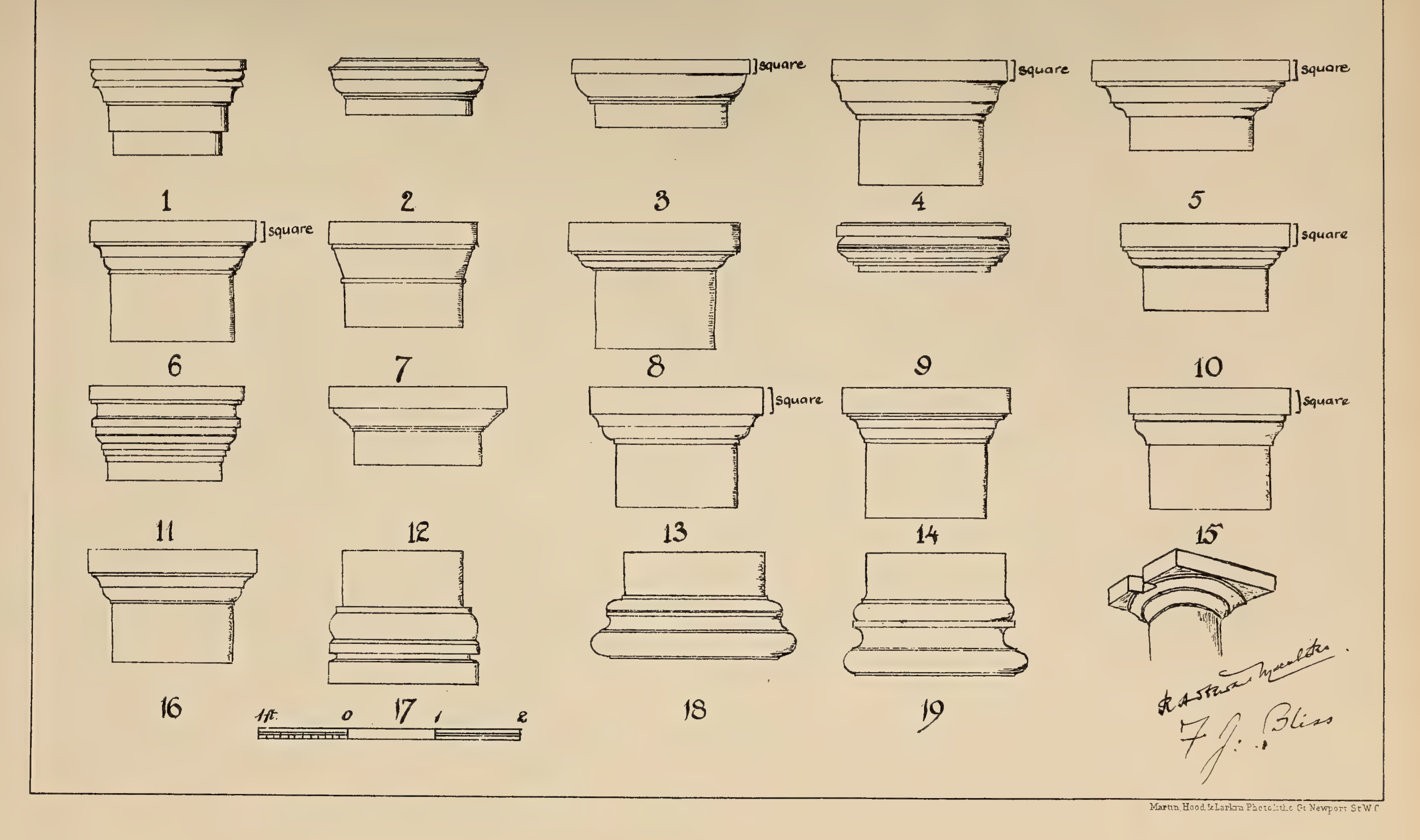


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TELL EJ-JUDEIDEH EXCAVATION

CENTRAL SURFACE BUILDING: CAPITALS & BASES



Martin Hood & Larkin Photolitho Gt Newport St W C



Tell ej-Judeideh: Mason's Marks from the Central Surface Building

1 in 0 1 2 3 4 5 6

1 2 3 4 5

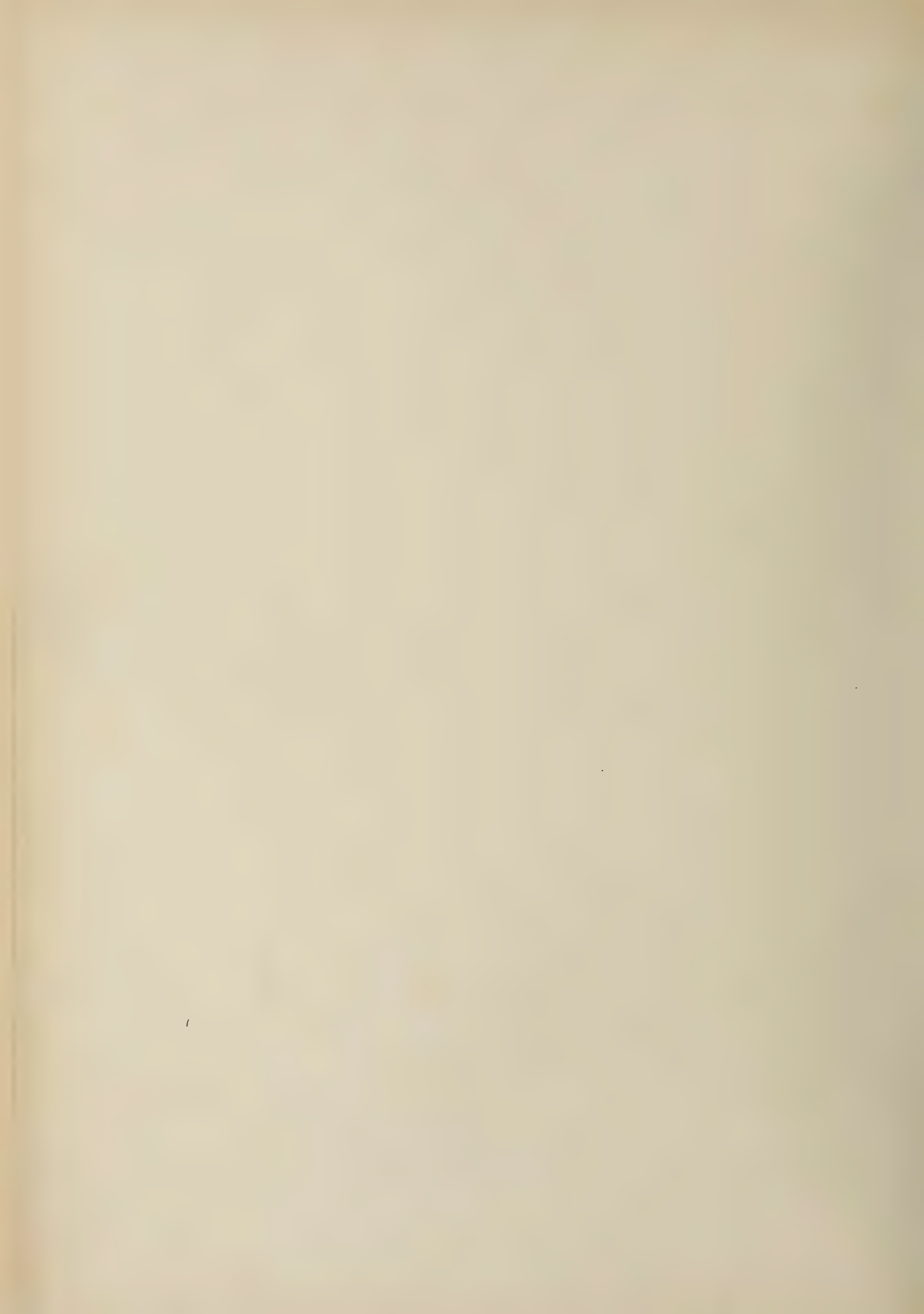
6 7 8 9 10

11 12 13 14 15

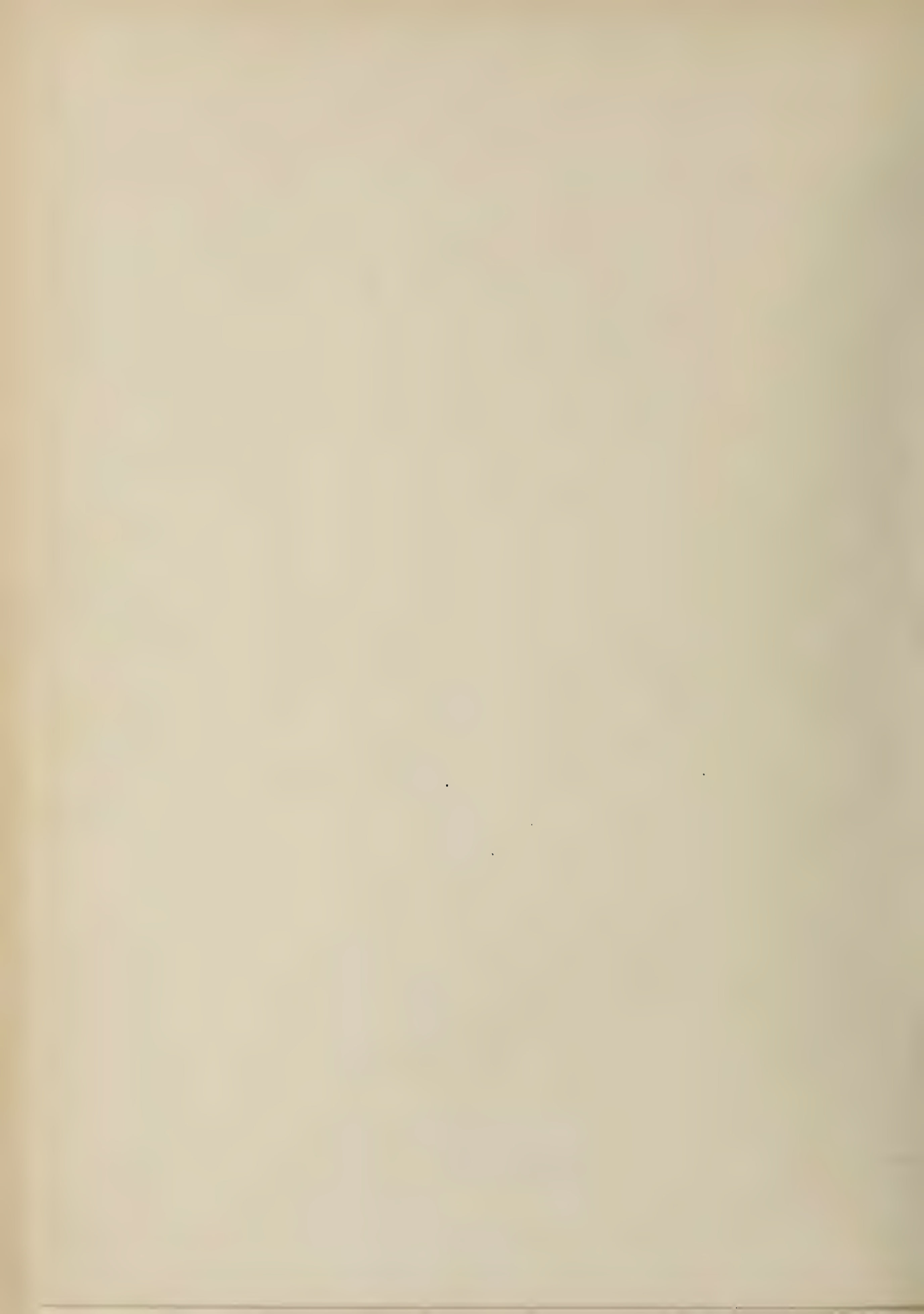
16 17 18 19 20

21 22 23 24 25

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TELL SANDAḤANNAH
0ft 25 50 100 200
To Beit Jibrîn
To El-Kubeibeh
1098
1081 ft
1056 ft
1031 ft
"Mughâret Sandaḥannah" (Souterrain)
"Es-Suk" (Columbarium)
Columbarium
Wely
Caves
Souterrain
Pit (fallen in)
Cave fallen in
Mouths of inaccessible caves
Cave (not explored)
Oilpress
Caves fallen in
Rock-cut winepress
Cave blocked up
Cave filled up
Small Columbarium
F. J. Bliss.
Martin, Hood & Larkin Photo Litho 1a Newport St W.C.

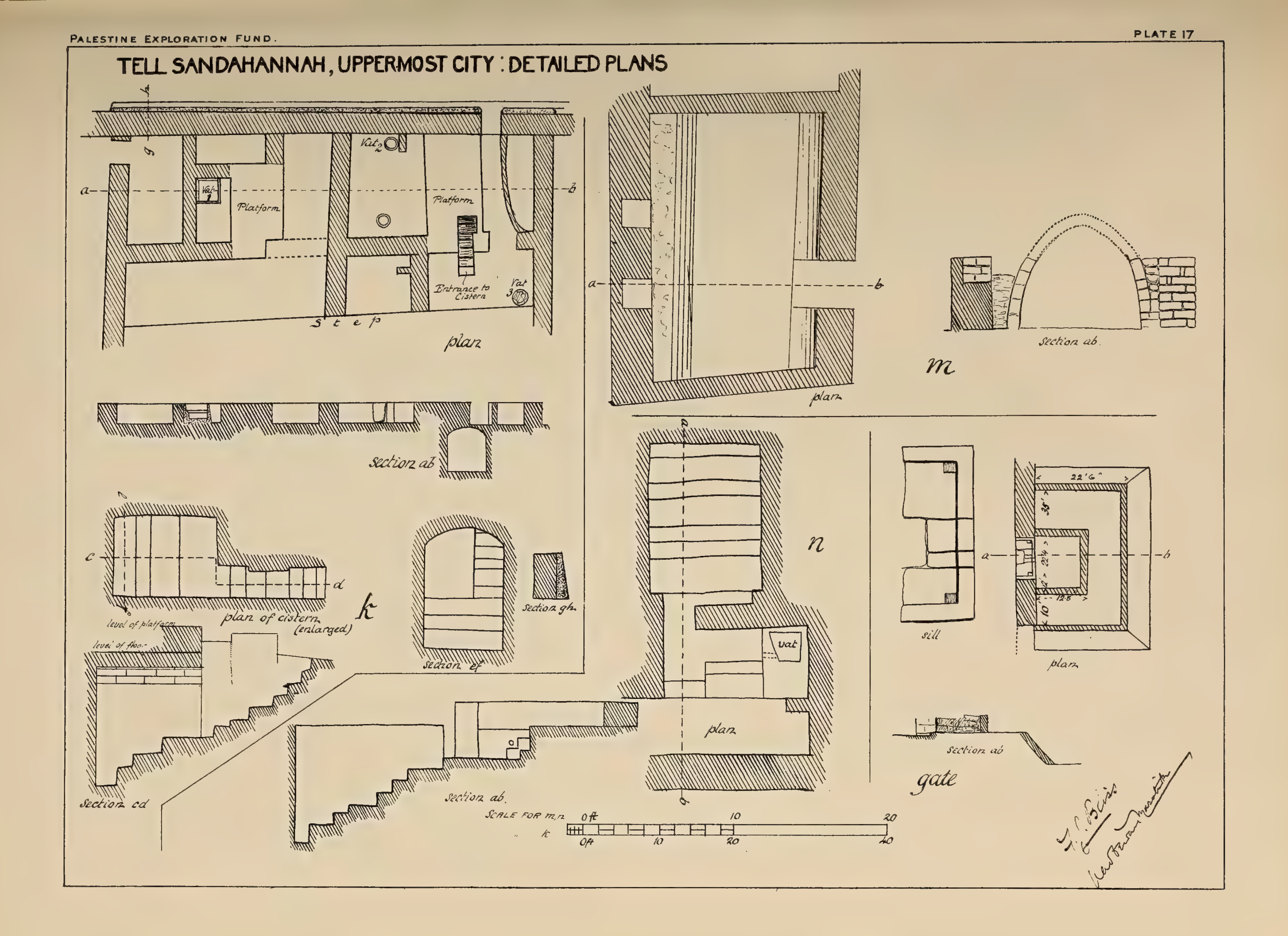




Martin, Hood & Larkin Photolitho, Gt. Newport St, W.C.



TELL SANDAHANNAH, UPPERMOST CITY: DETAILED PLANS





TELL SANDAḤANNAH: FRAGMENTS OF STONE ORNAMENT &c.



TELL SANDAHANNAH: FRAGMENTS OF STONE ORNAMENT &c





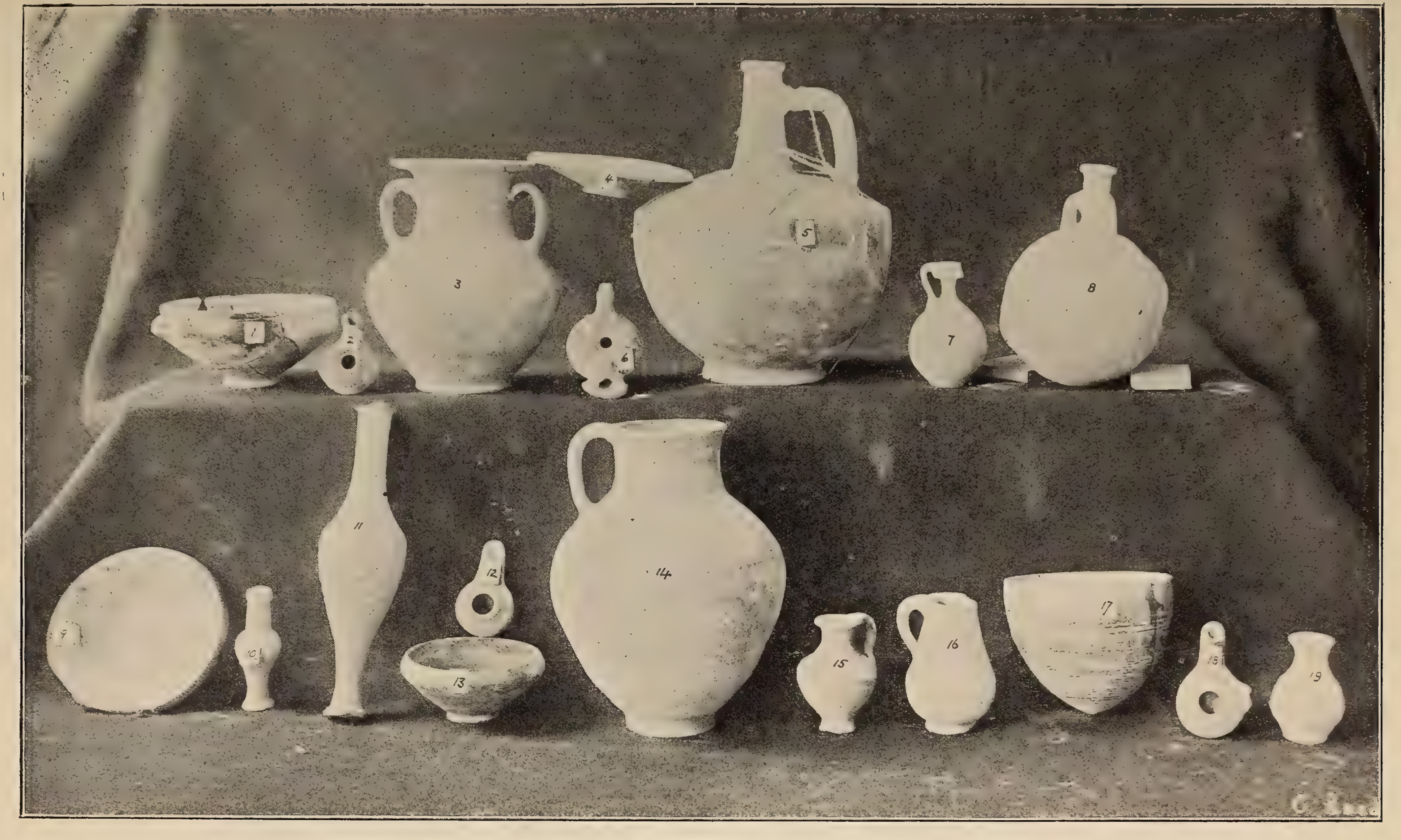
TYPES OF PALESTINIAN POTTERY: PRE-ISRAELITE PERIODS.





TYPES OF PALESTINIAN POTTERY: JEWISH PERIOD.





TYPES OF PALESTINIAN POTTERY: SELEUCIDAN PERIOD.



PALESTINIAN POTTERY: EARLY PRE-ISRAELITE PERIOD.

1 in 0 1 2 3 4 5 6 7 8 9 10 11
1 in. 0 1 2 3 4 5
10 5 10 15 20 25
1 cm 0 5 5 10

upper figures in each scale refer to 1,2
lower " " " 3

1 S

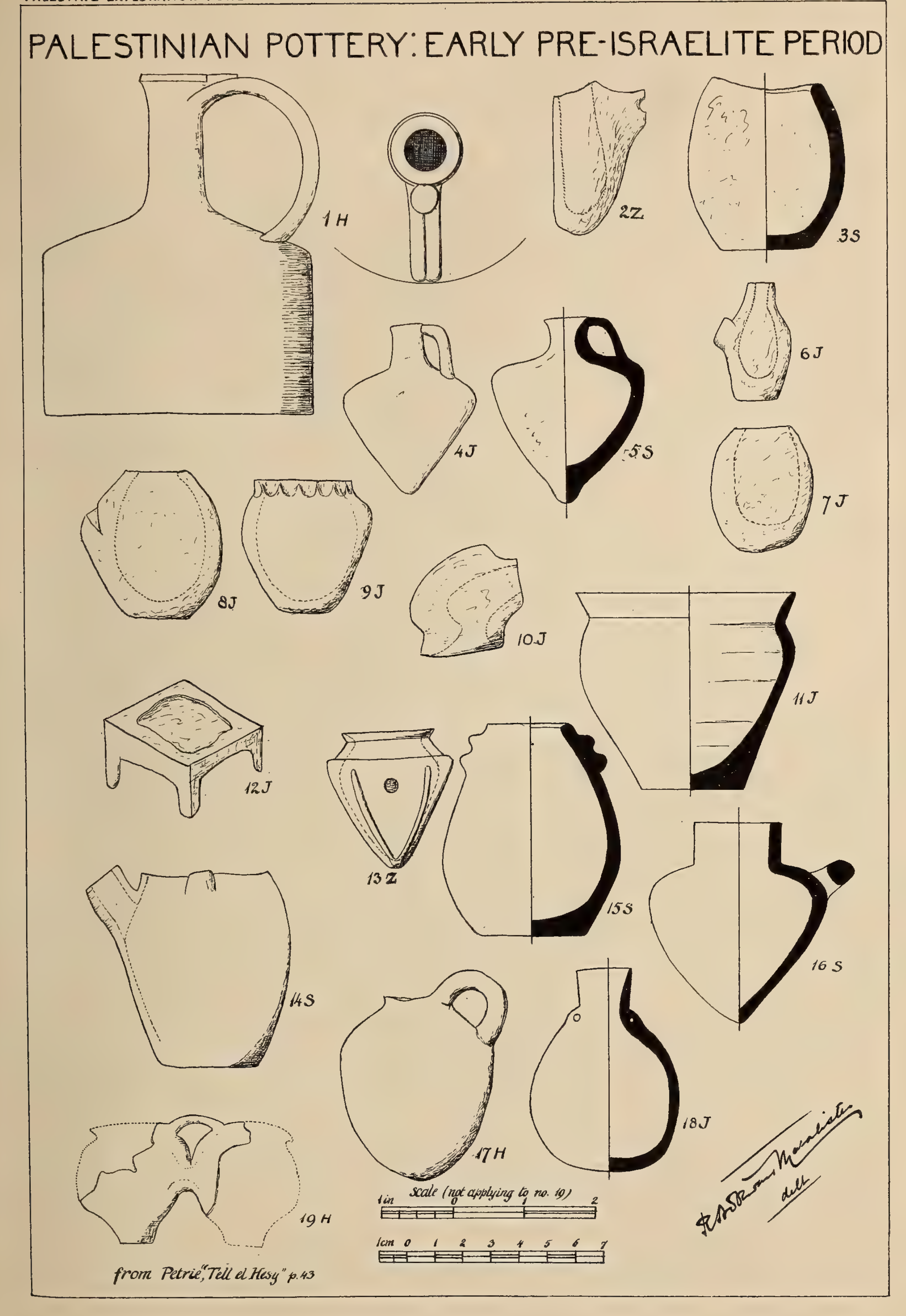
2 J

3 J

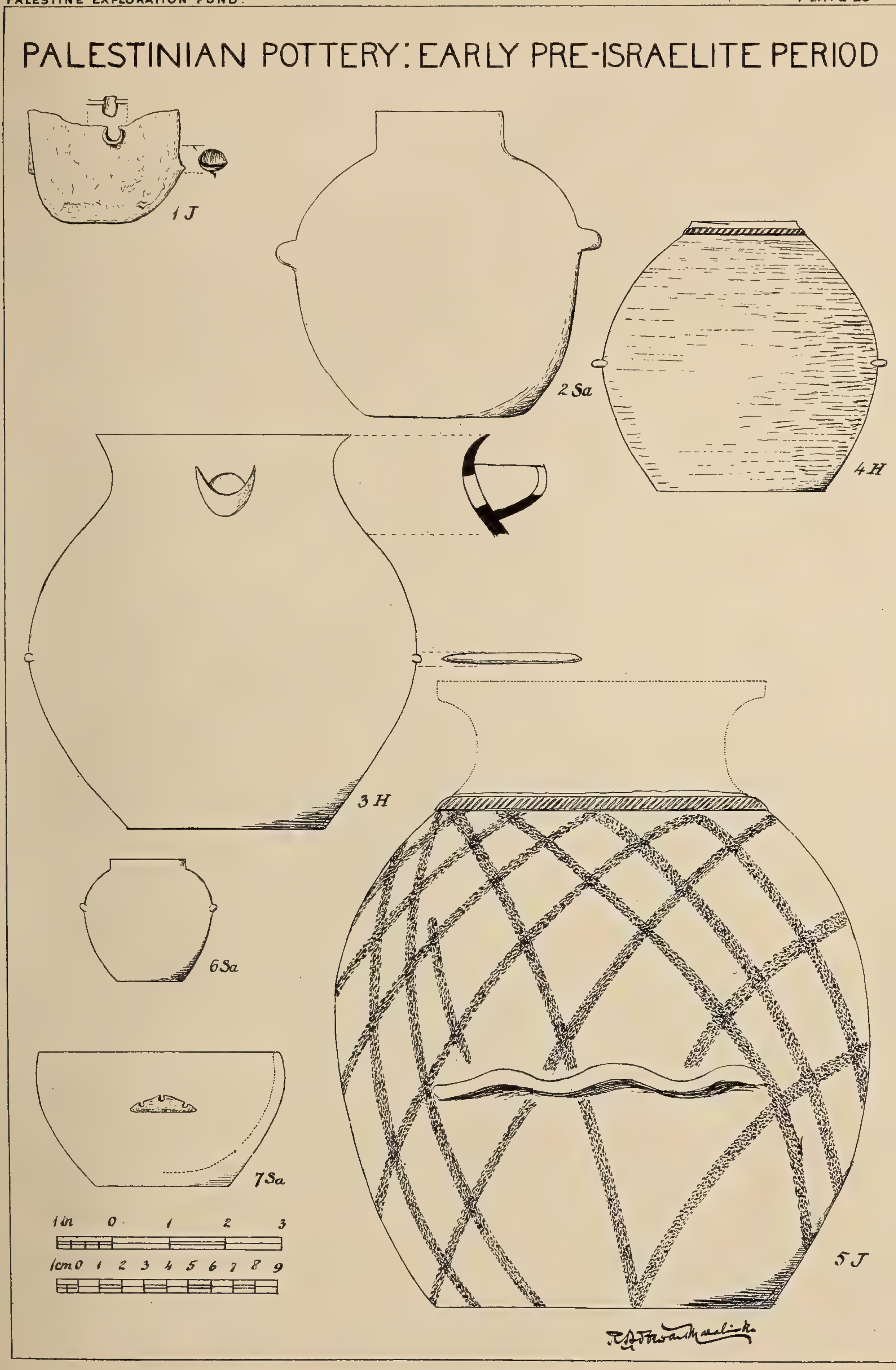
R A S Macalister

Martin, Hood & Larkin, Photolitho, Gt. Newport St, W C




PALESTINIAN POTTERY: EARLY PRE-ISRAELITE PERIOD
1 H
2Z
3S
4J
5S
6J
7J
8J
9J
10J
11J
12J
13Z
14S
15S
16 S
17H
18J
19 H
from Petrie, "Tell el Hesy" p.43
Scale (not applying to no. 19)
1 in 0 1 2
1 cm 0 1 2 3 4 5 6 7
R.A.S. Macalister delt




PALESTINIAN POTTERY: EARLY PRE-ISRAELITE PERIOD
1 J
2 Sa
3 H
4 H
5 J
6 Sa
7 Sa
1 in 0 1 2 3
1 cm 0 1 2 3 4 5 6 7 8 9



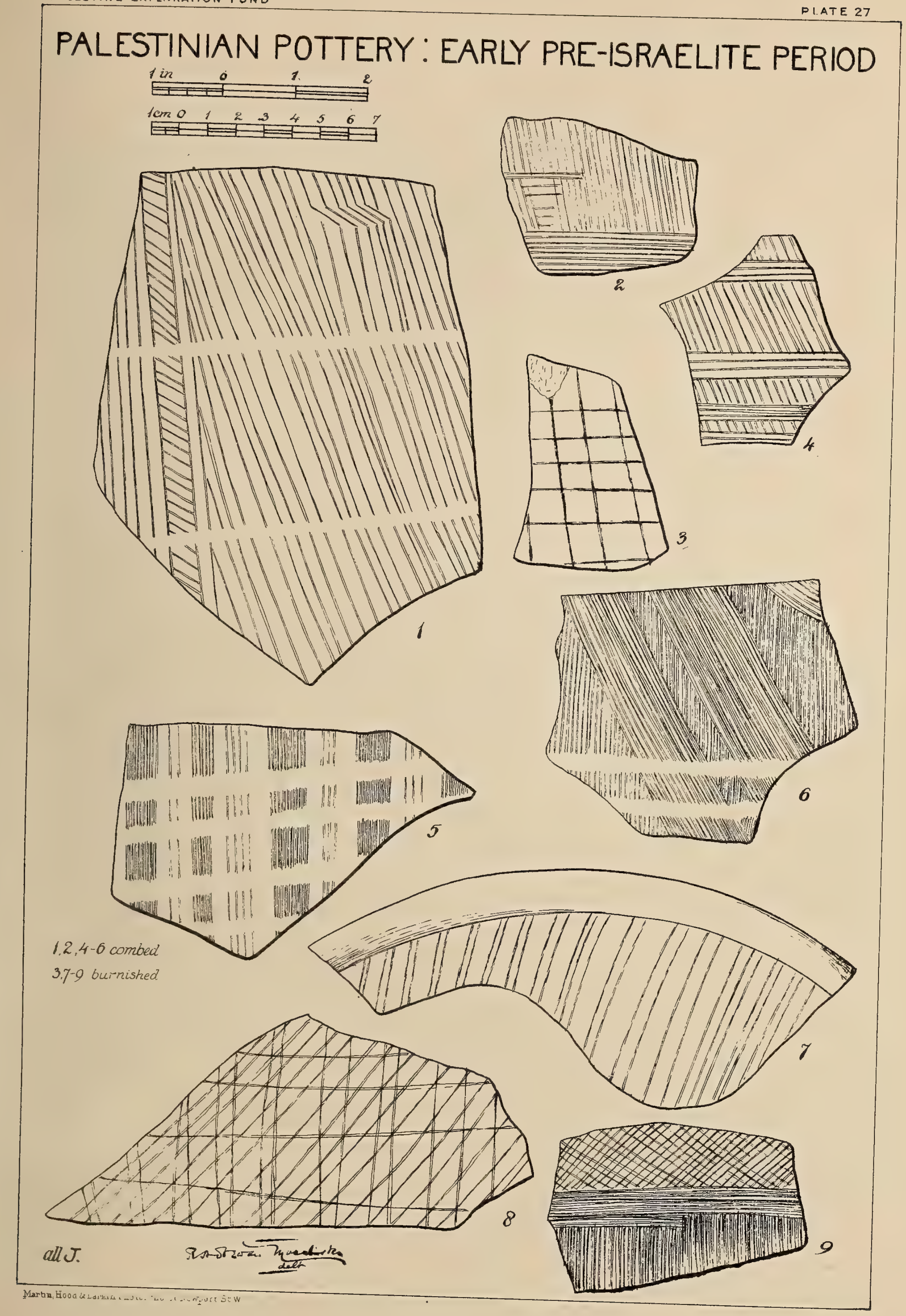


PALESTINIAN POTTERY: EARLY PRE-ISRAELITE PERIOD

All S

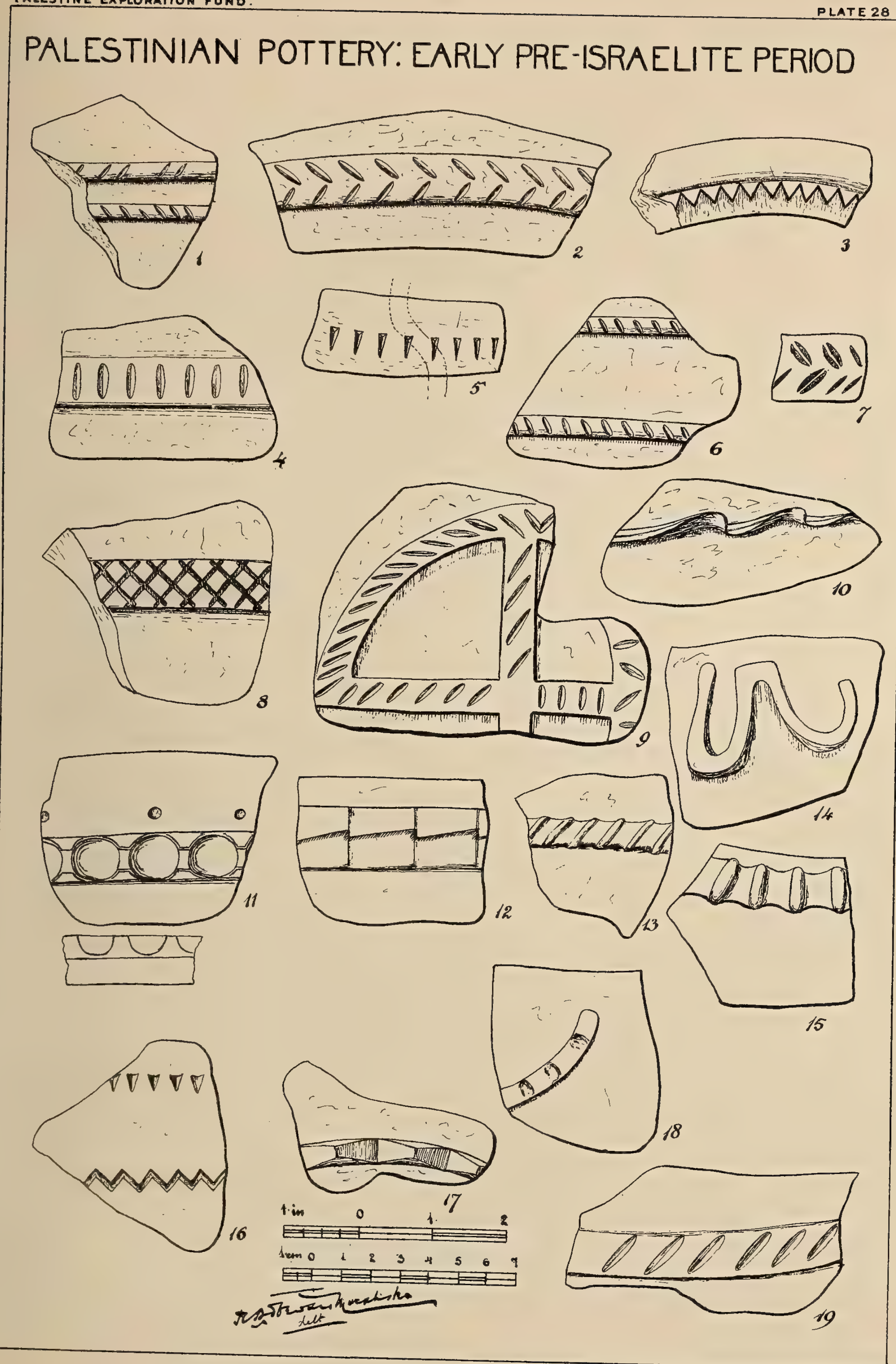


PALESTINIAN POTTERY: EARLY PRE-ISRAELITE PERIOD



Martin, Hood & Larkin ...





PALESTINIAN POTTERY: EARLY PRE-ISRAELITE PERIOD



PALESTINIAN POTTERY: EARLY PRE-ISRAELITE PERIOD

1 2 3 4 5 6 7 8 9 10

11 12 13 14 15 16

17 18 19 20 21 22

23 24 25 26 27 28

29 30 31 32

33 34 35 36 37 38 39

40 41 42 43 44

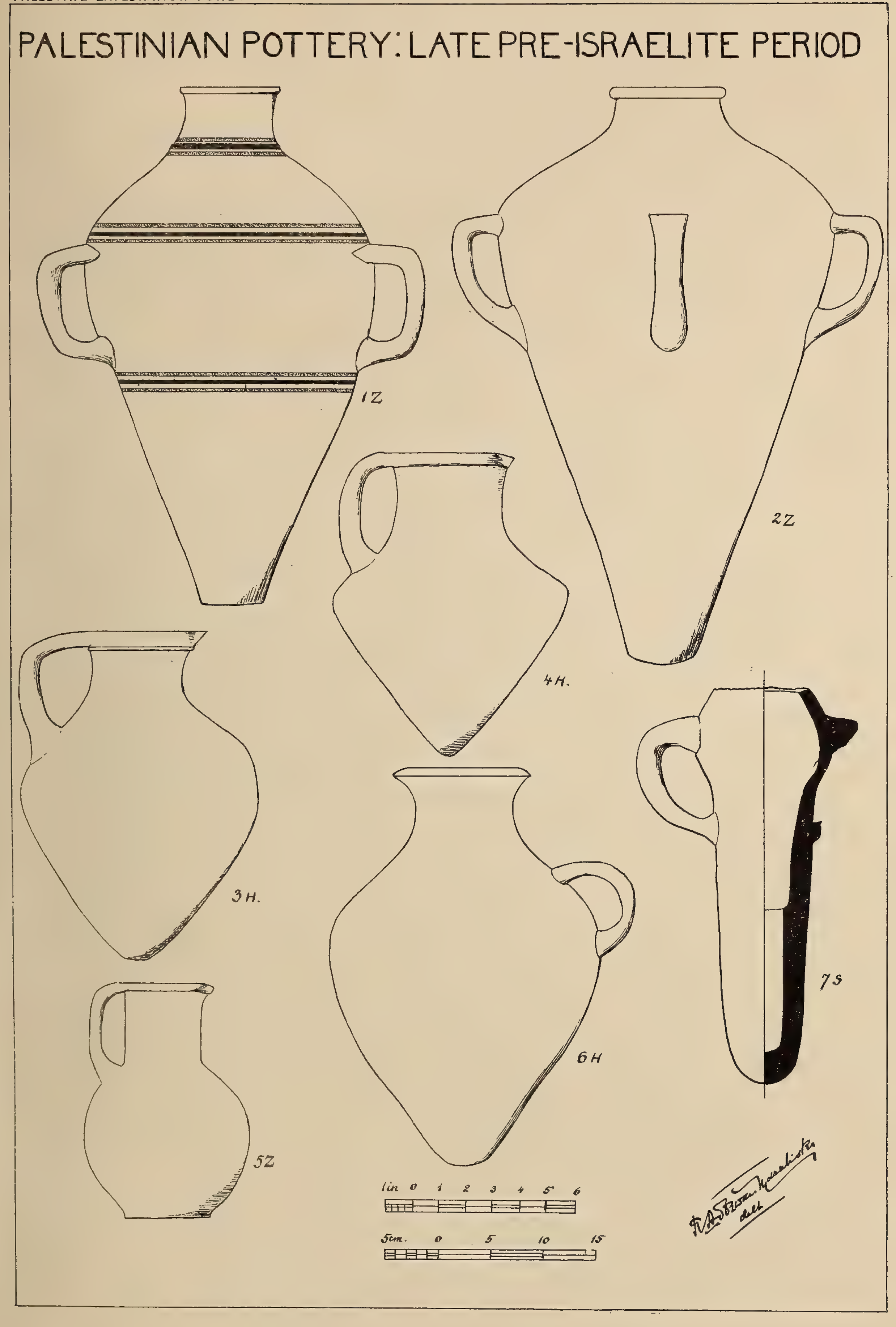
45 Sa

R. A. Stewart Macalister

all H except 45

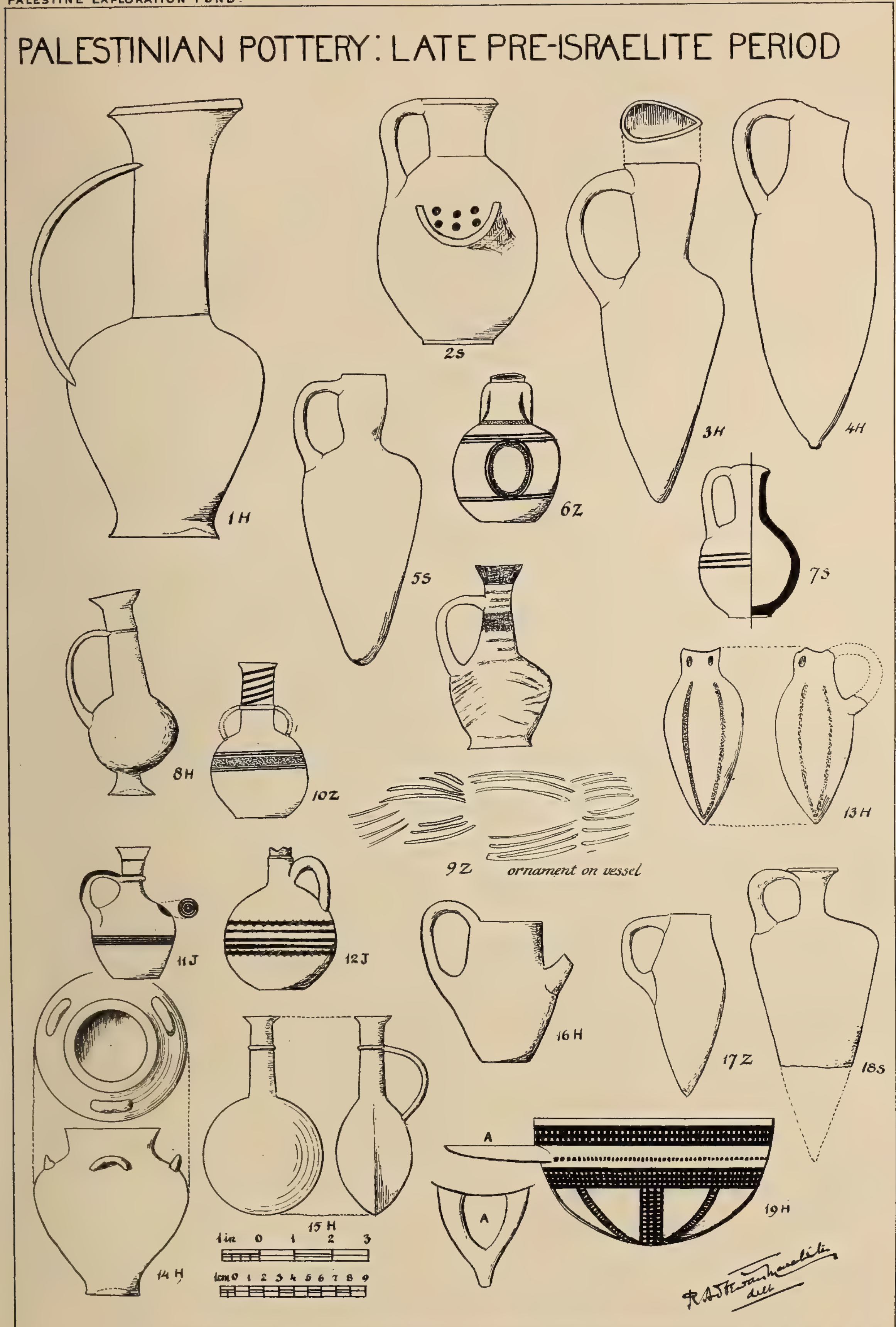


PALESTINIAN POTTERY: LATE PRE-ISRAELITE PERIOD

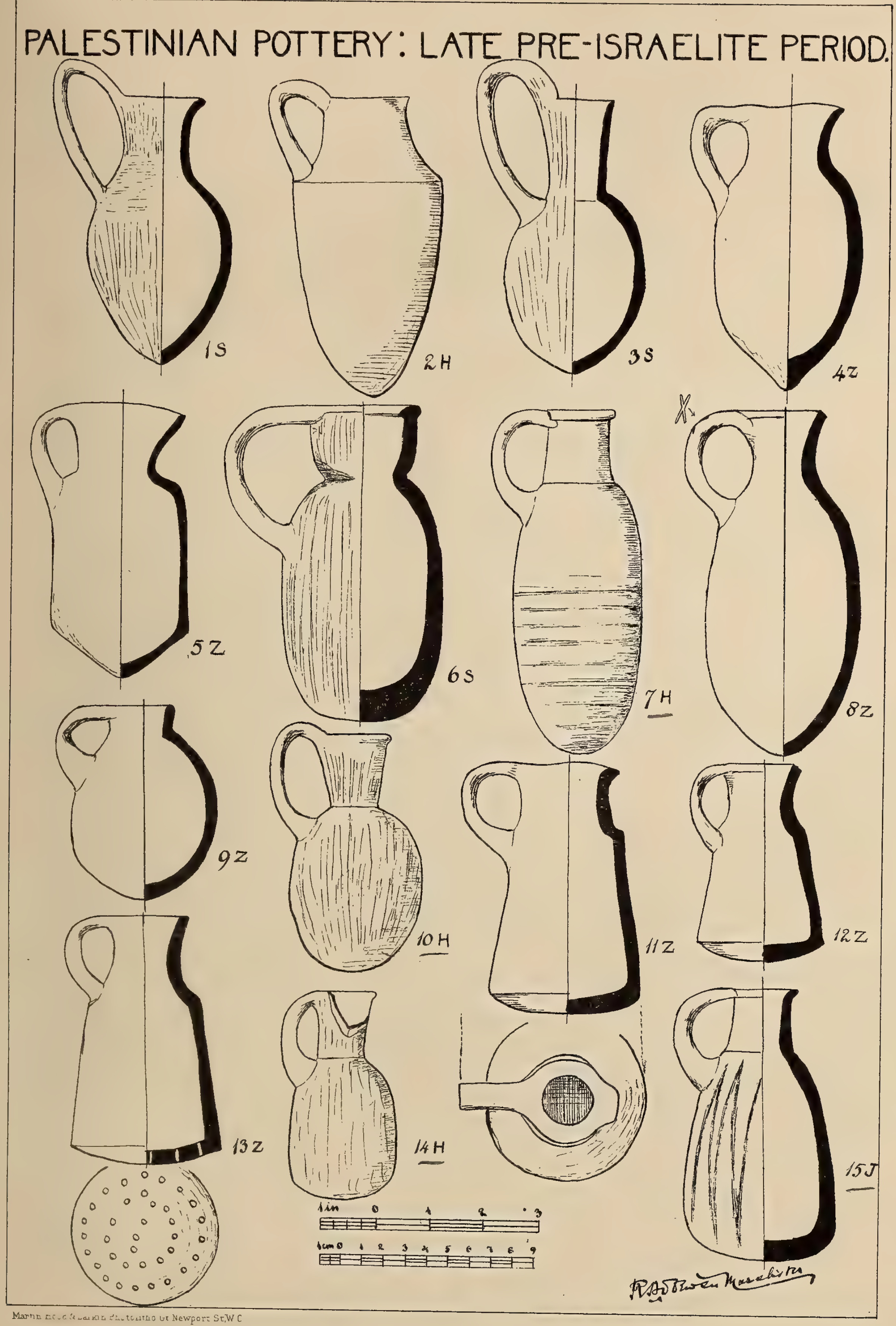




PALESTINIAN POTTERY: LATE PRE-ISRAELITE PERIOD

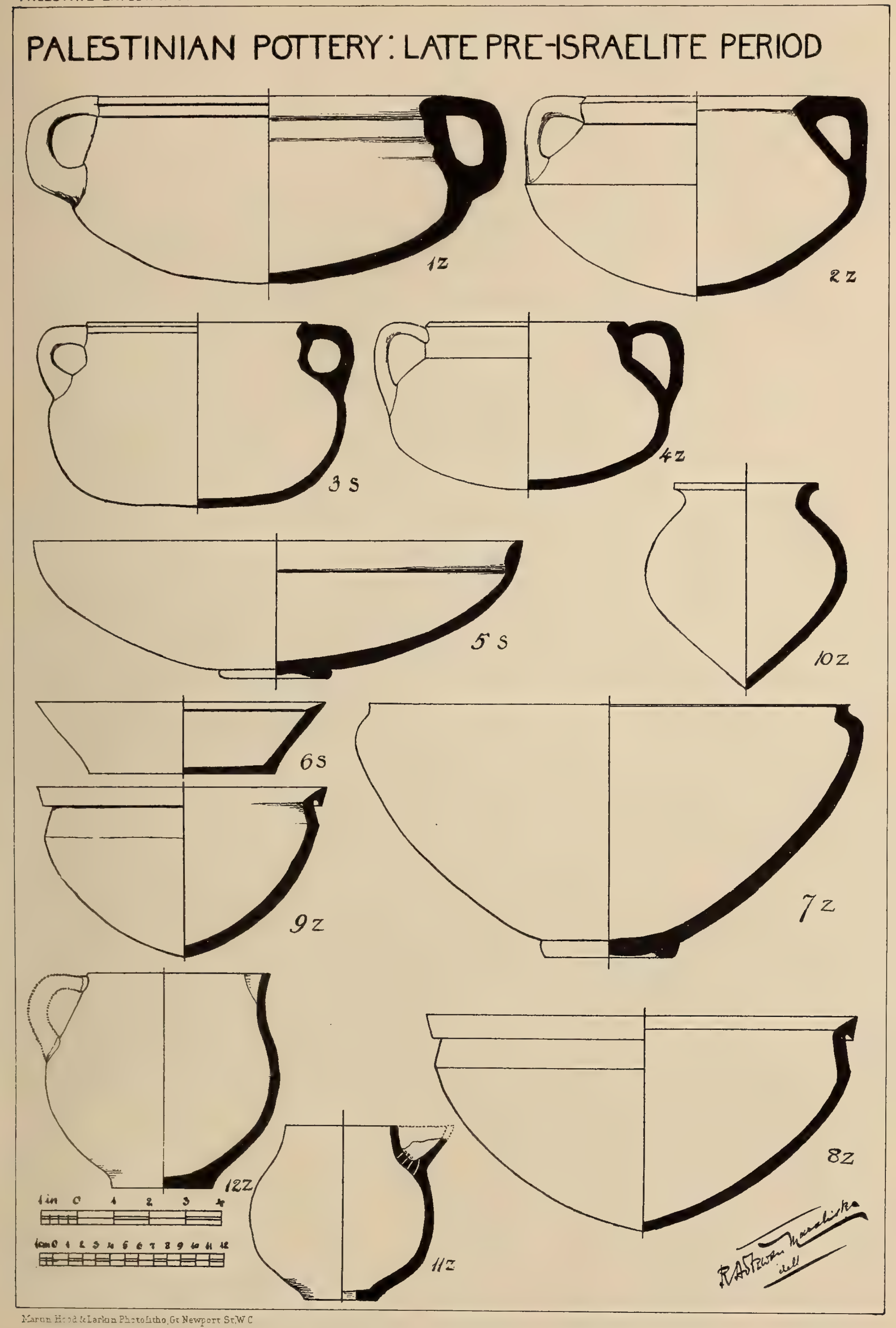






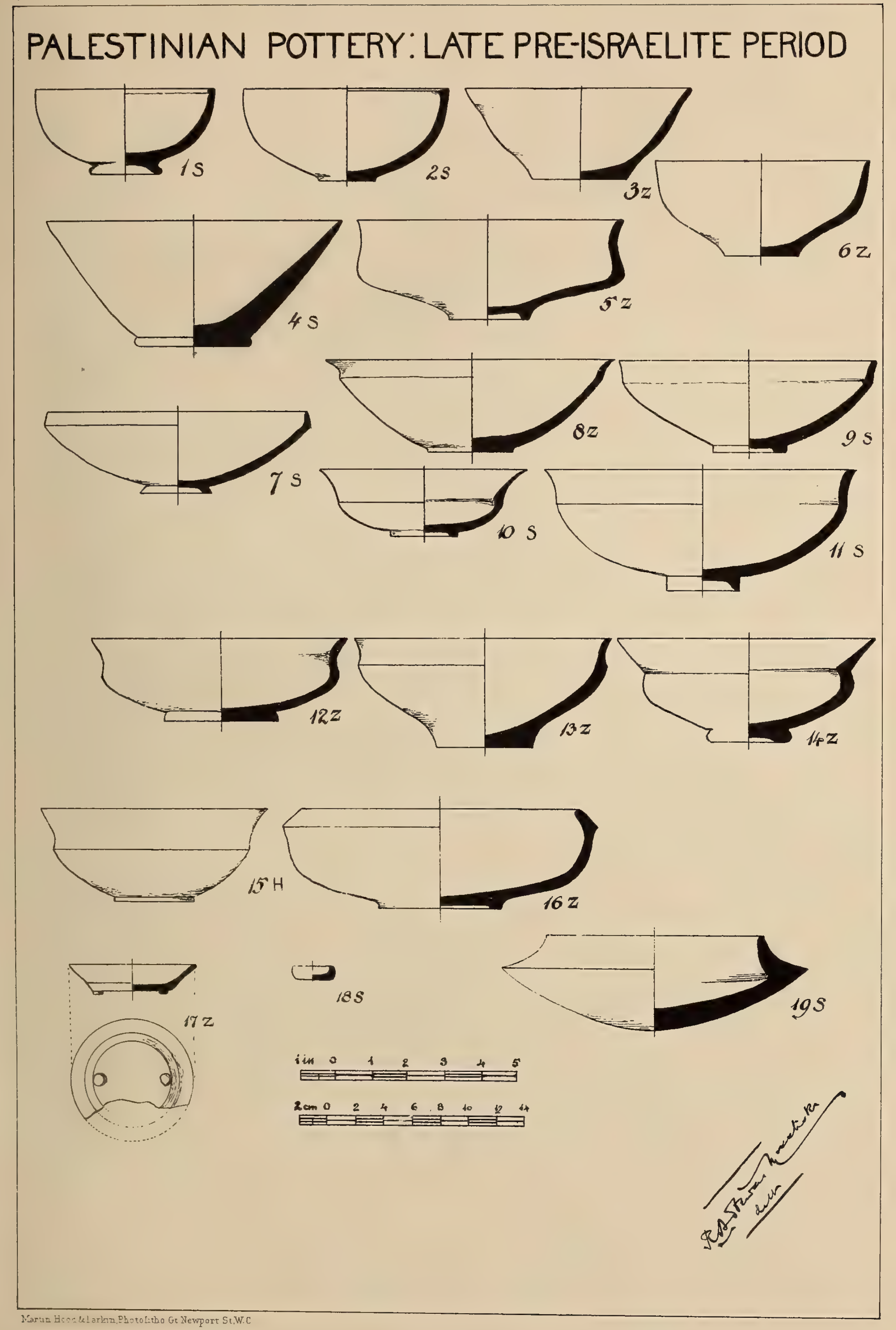
Martin [illegible] Newport St, W.C.





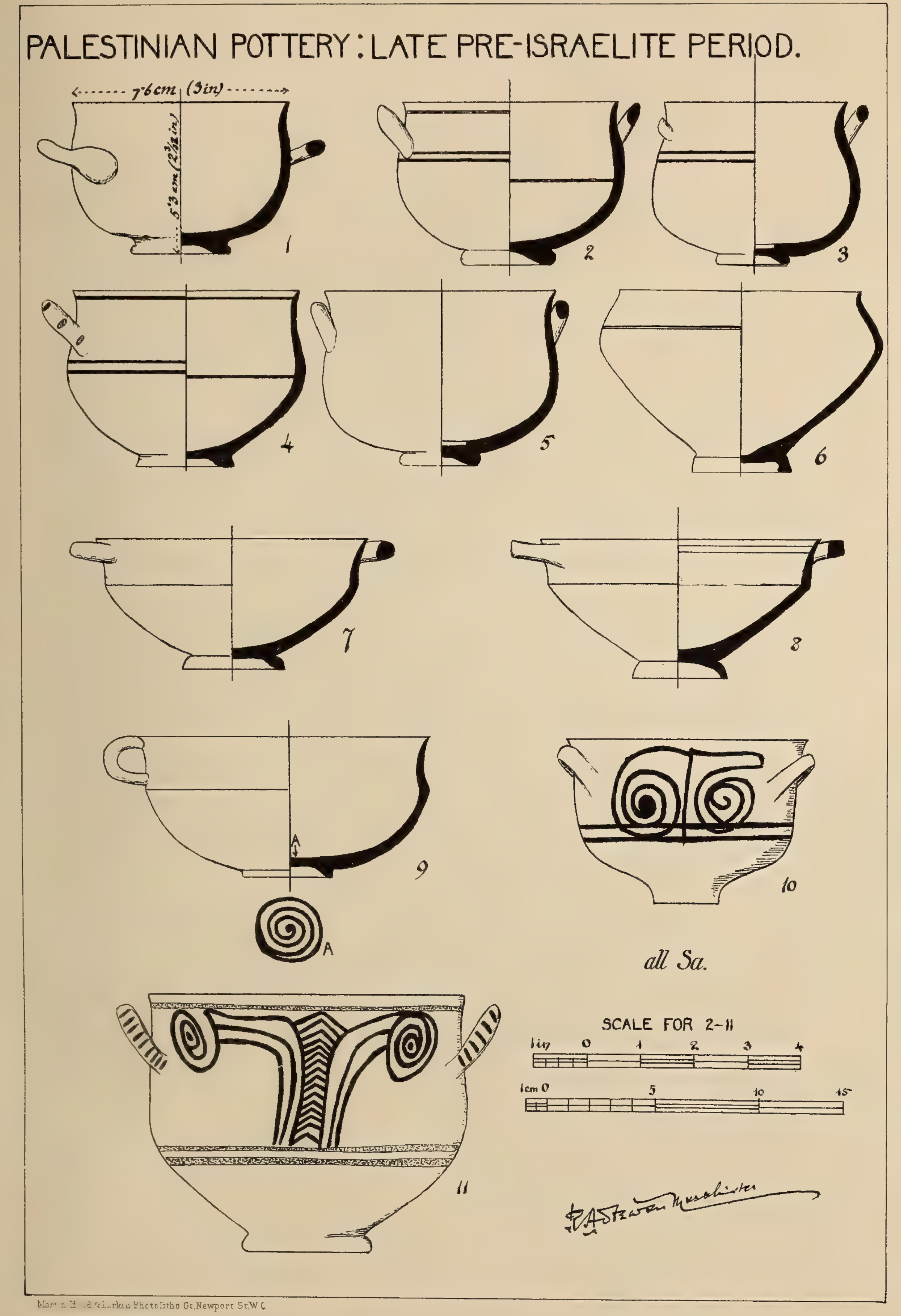
Maclure Hood & Larkin Photolitho, Gt Newport St, W.C.





Martin Hood & Larkin, Photolitho Gt Newport St, W.C.





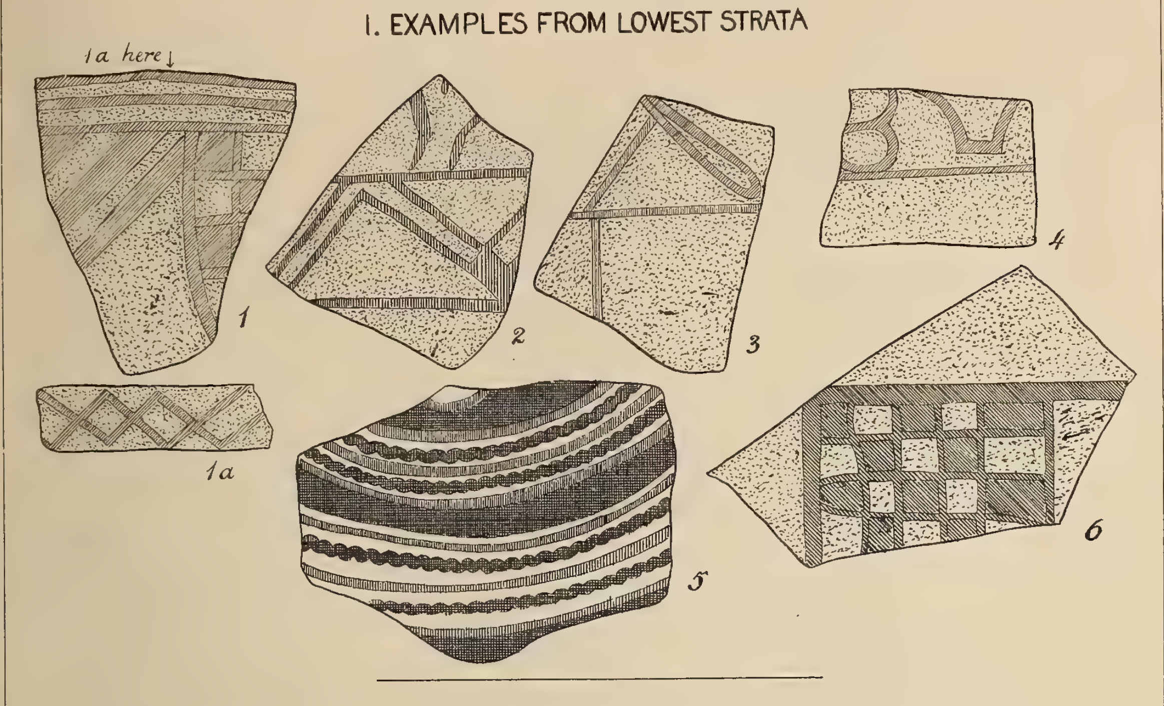
Martin Hood & Larkin Photolitho Co, Newport St, W.C.



PALESTINIAN POTTERY: PRE-ISRAELITE PERIOD.

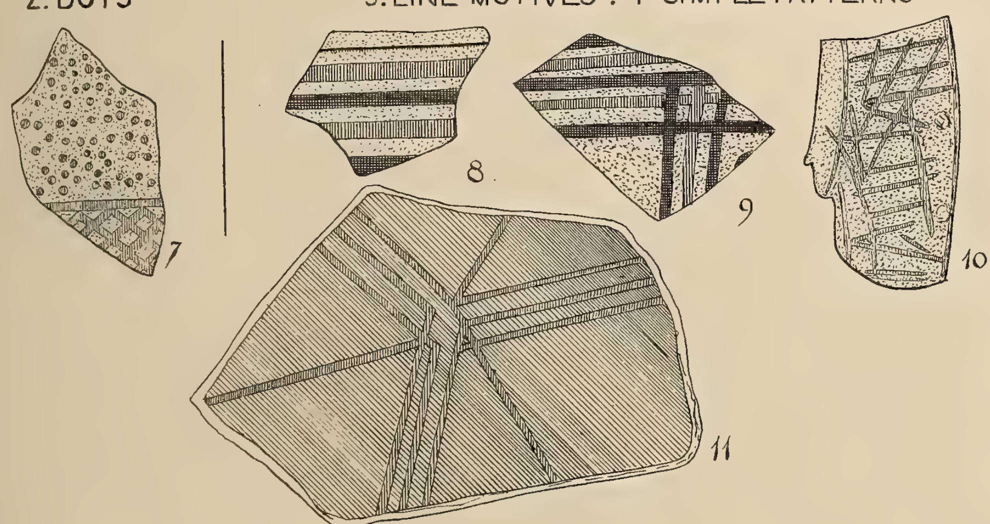
COLOURED DECORATION

1. EXAMPLES FROM LOWEST STRATA

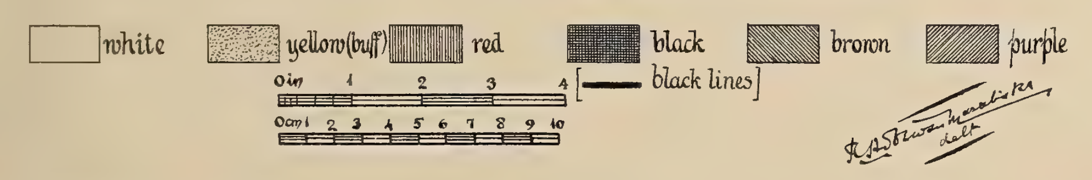


2. DOTS

3. LINE MOTIVES. i SIMPLE PATTERNS



INDICATIONS FOR COLOUR EMPLOYED ON PLATES 36-42



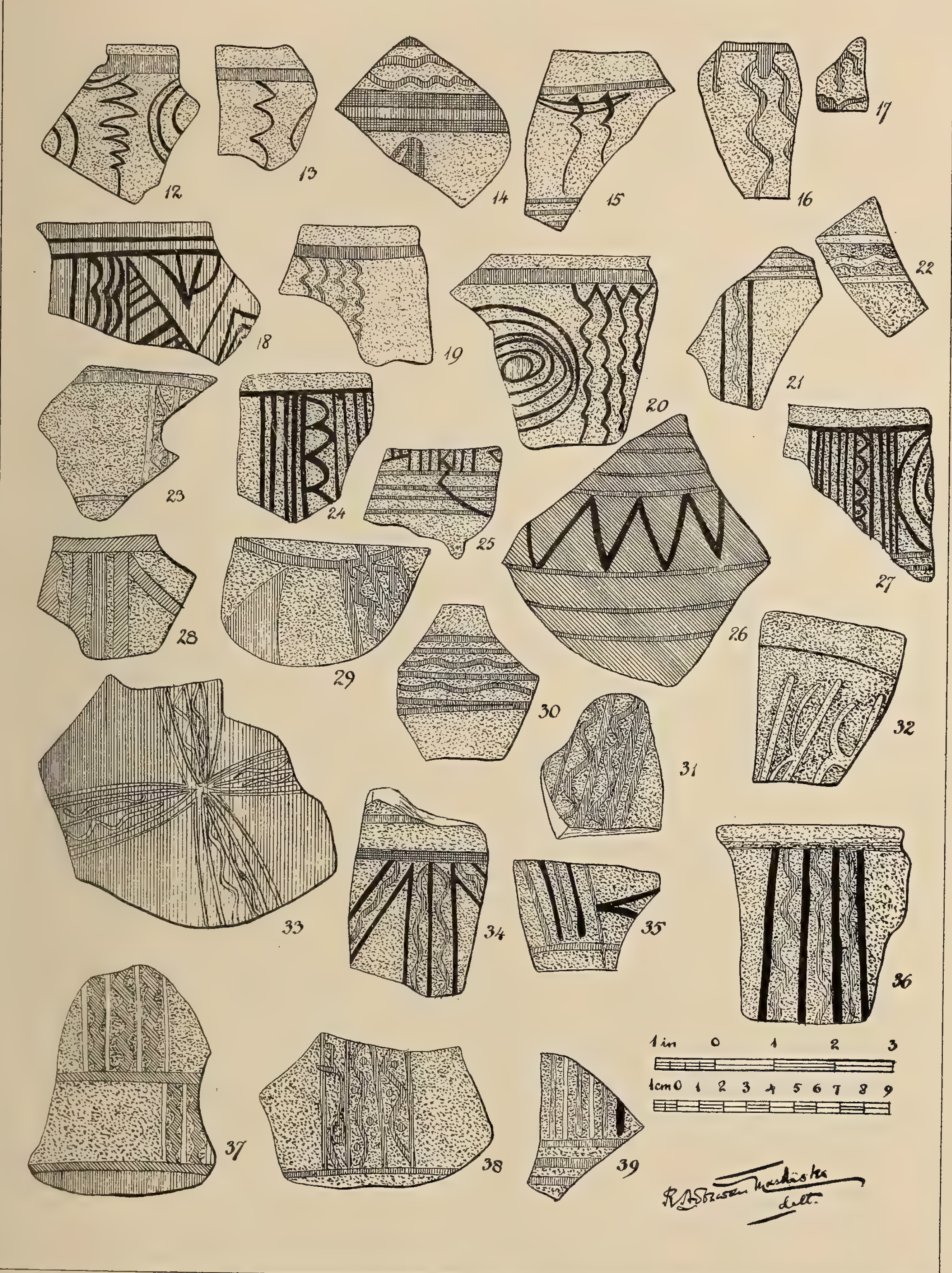
Martin, Hood & Larkin Photolitho, Gt Newport St, W.C.



PALESTINIAN POTTERY: PRE-ISRAELITE PERIOD.

COLOURED DECORATION

3. LINE MOTIVES. ii. ZIGZAG PATTERNS

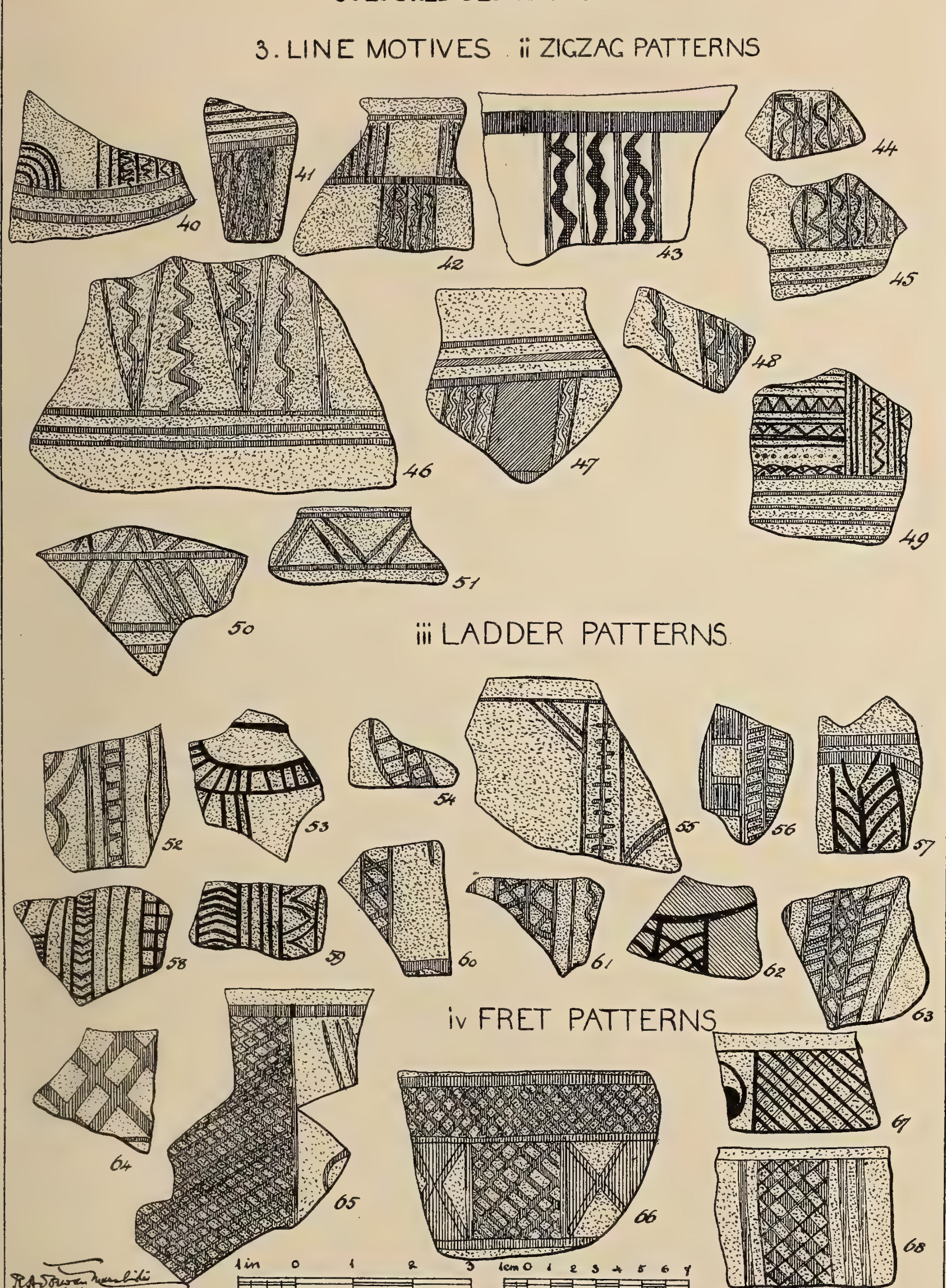


Martin Hood & Larkin Photolitho Gt Newport St, W.C.



PALESTINIAN POTTERY: PRE-ISRAELITE PERIOD

COLOURED DECORATION

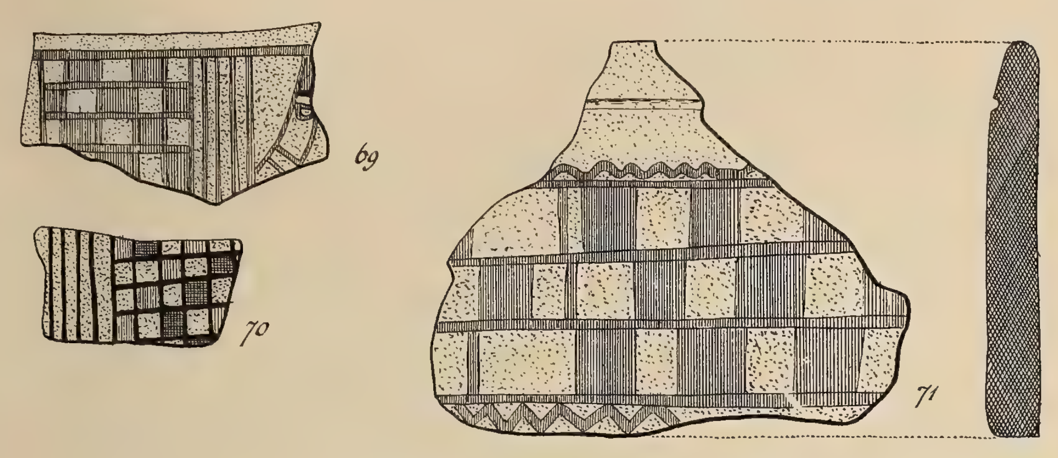




PALESTINIAN POTTERY: PRE-ISRAELITE PERIOD.

COLOURED DECORATION

3. LINE MOTIVES. v CHEQUER PATTERNS

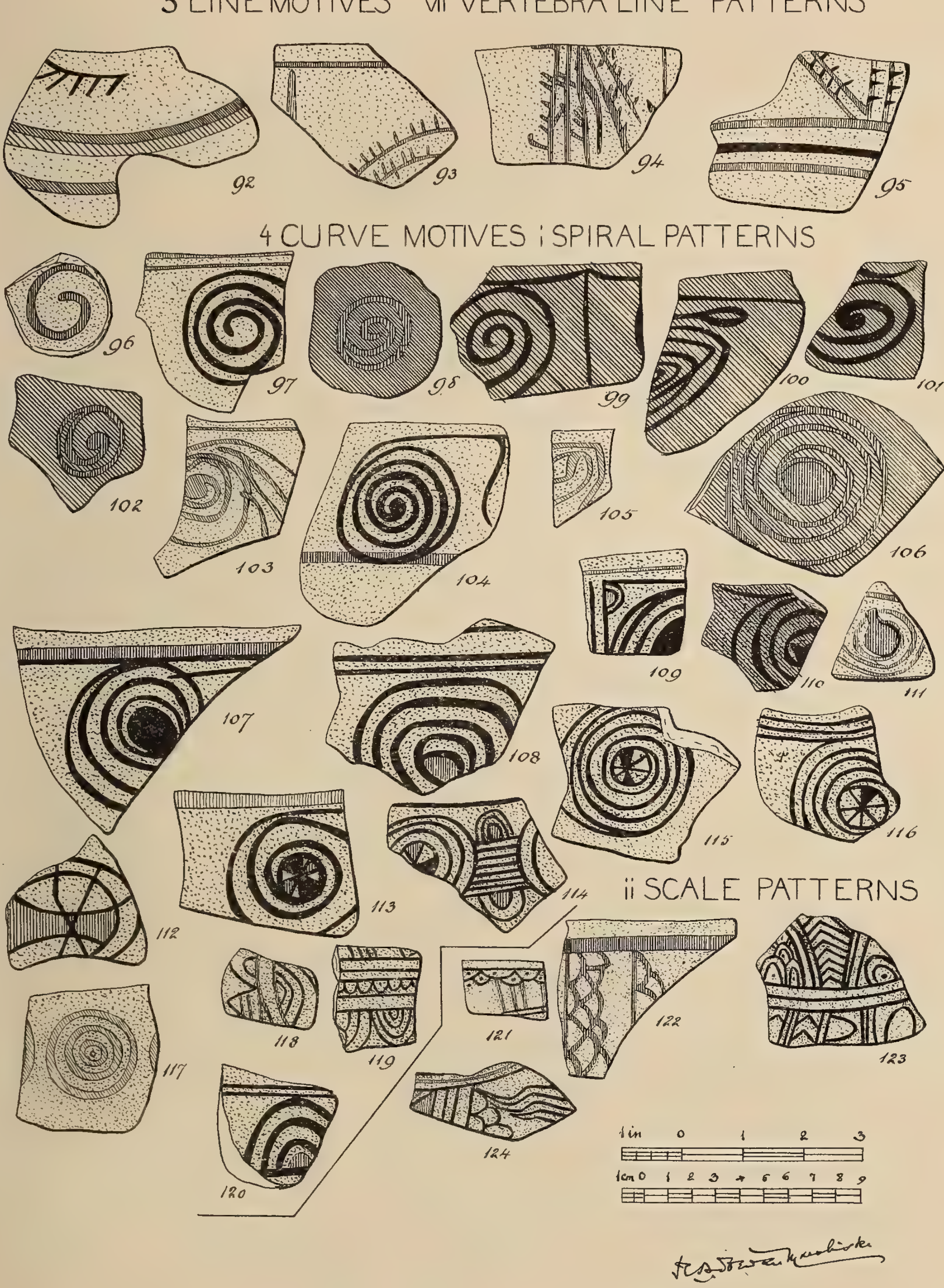


vi LOZENGE & TRIANGLE PATTERNS



PALESTINIAN POTTERY: PRE-ISRAELITE PERIOD.

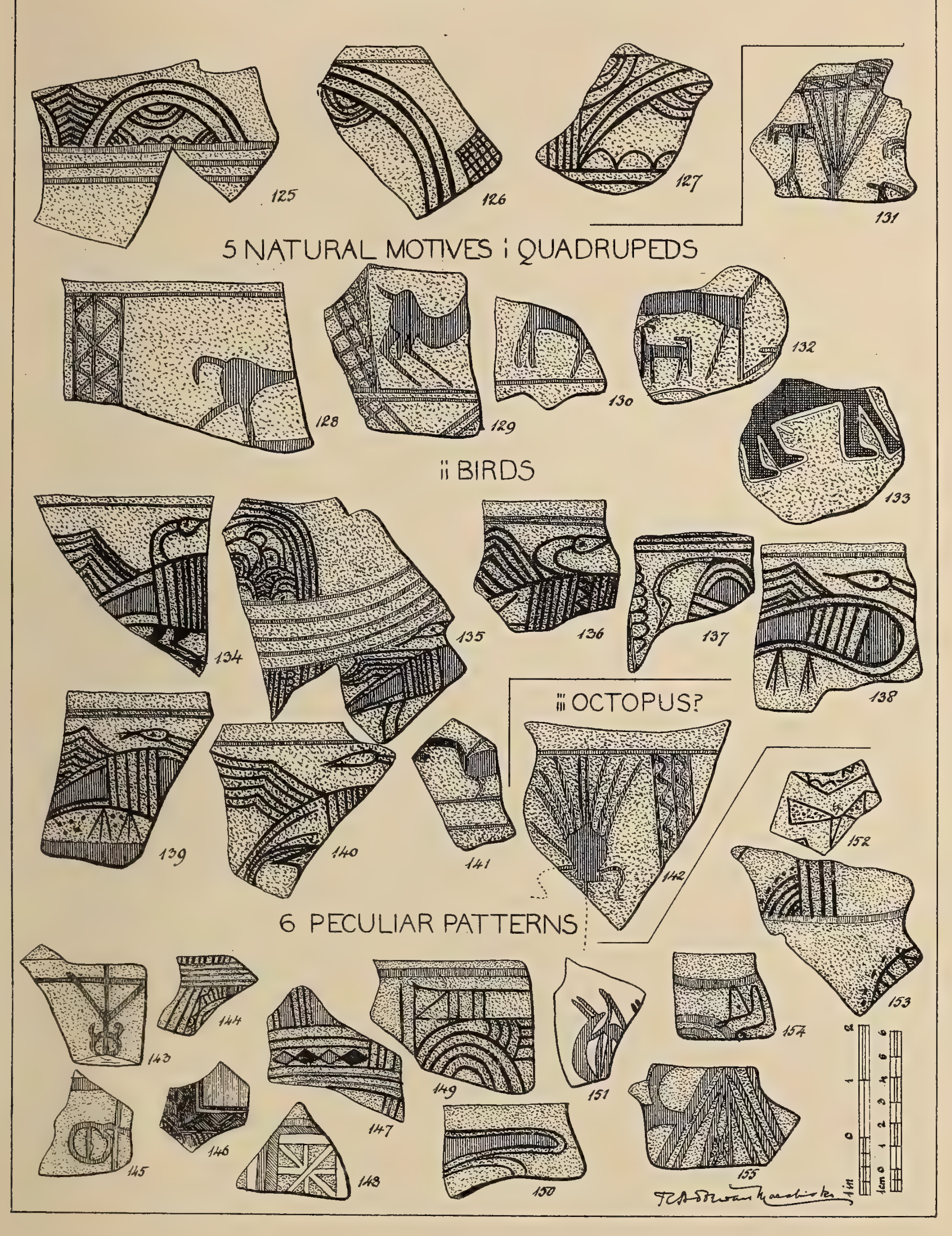
COLOURED DECORATION





PALESTINIAN POTTERY: PRE-ISRAELITE PERIOD

COLOURED DECORATION

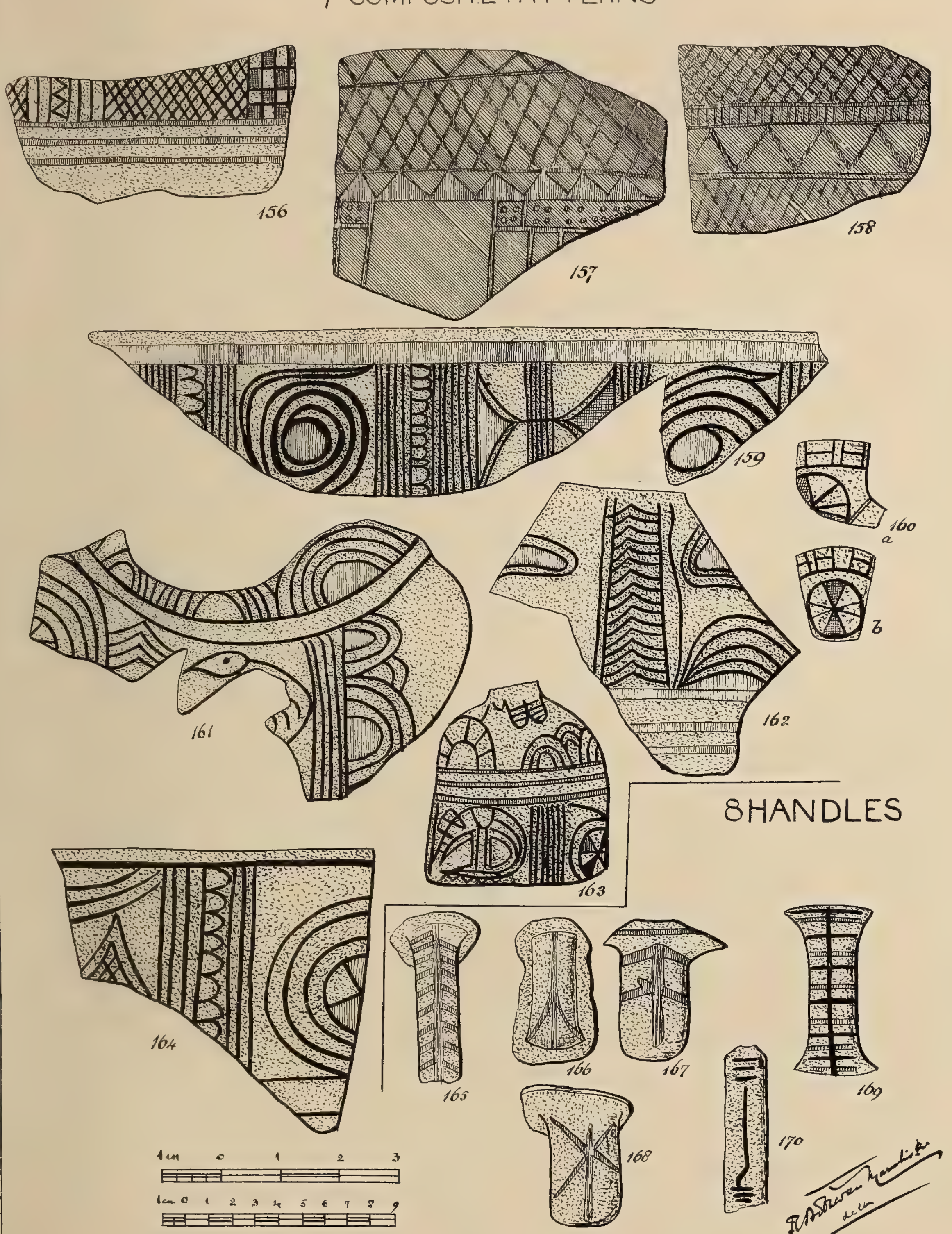


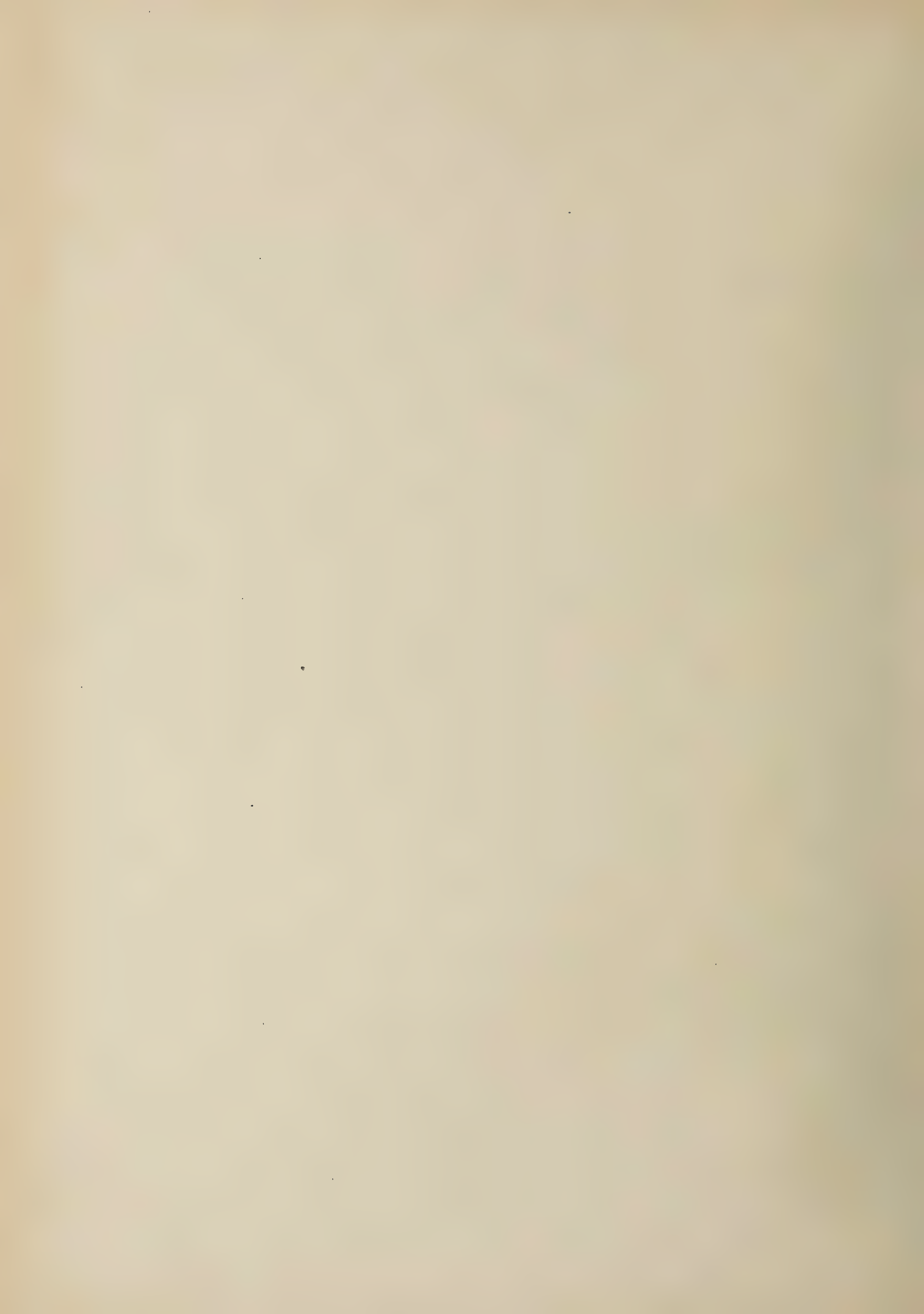


PALESTINIAN POTTERY: PRE-ISRAELITE PERIOD

COLOURED DECORATION

7 COMPOSITE PATTERNS





PALESTINIAN POTTERY

LATE PRE-ISRAELITE PERIOD

these bands almost effaced

1

2

3

4

5

6

7

8

9

red

all Z

1 in. 0 1 2 3

2 cm. 1 0 1 2 3 4 5 6 7 8

F. J. Bliss.

R. A. Stewart Macalister

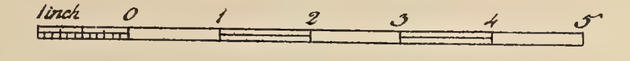
Martin, Hood & Larkin Photolitho Gt. Newport St. W.C.



PALESTINIAN POTTERY: PRE-ISRAELITE PERIOD.



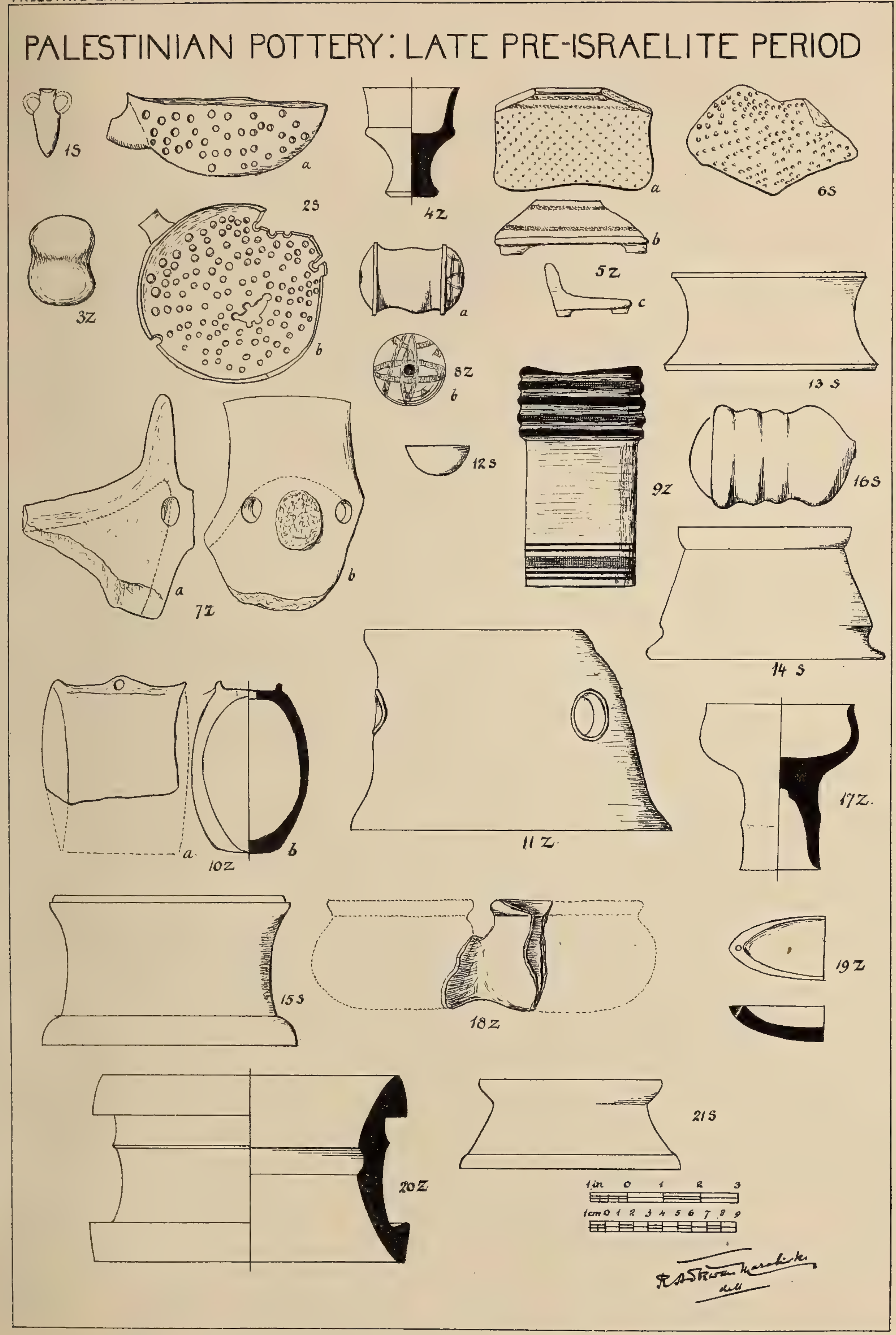
PROJECTION OF ORNAMENT





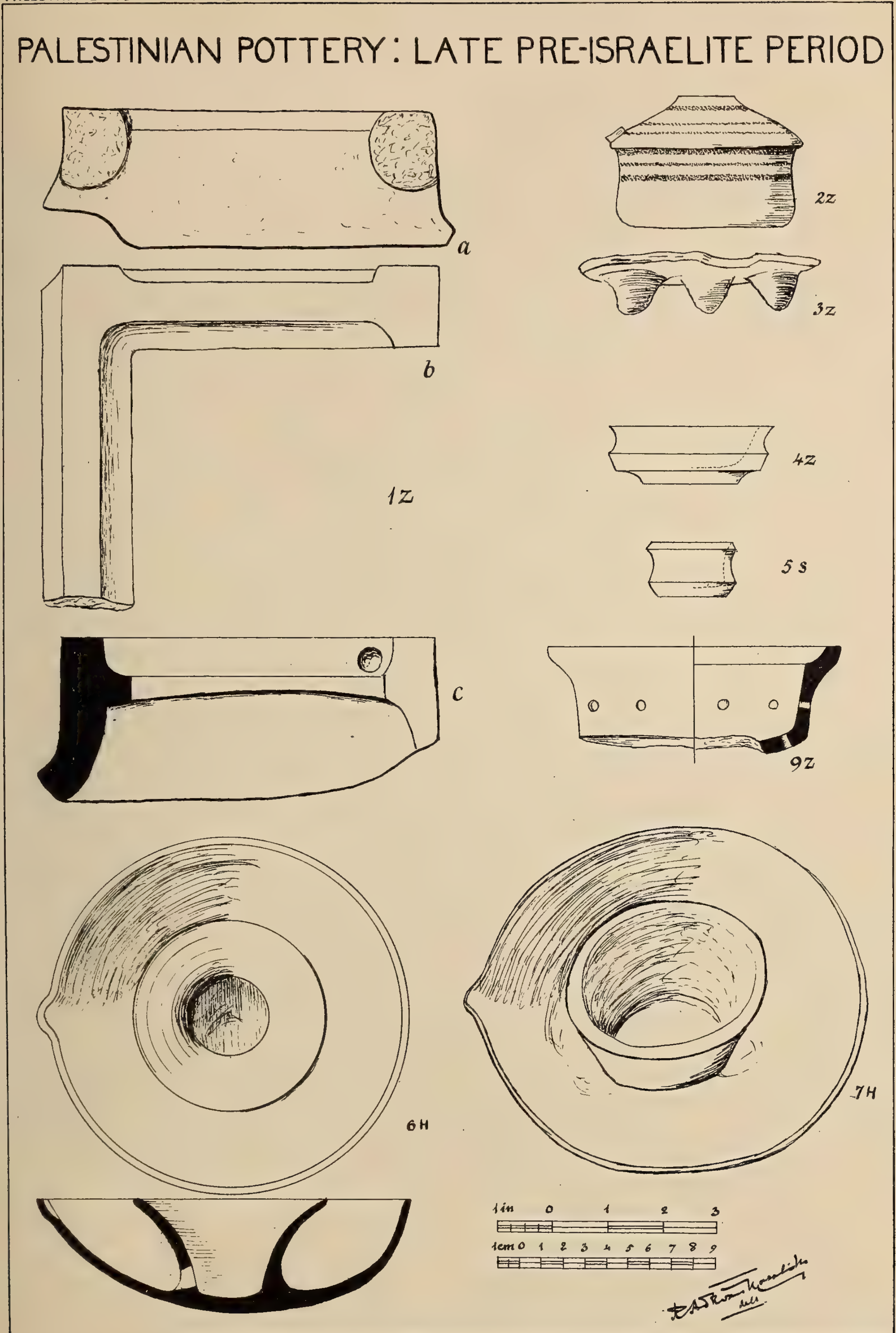
Martin, Hood & Larkin, Photolitho, Gt. Newport St, W.C.




PALESTINIAN POTTERY: LATE PRE-ISRAELITE PERIOD
1S
a
2S
b
3Z
4Z
a
b
5Z
c
6S
7Z
a
b
8Z
9Z
10Z
11Z
12S
13S
14S
15S
16S
17Z.
18Z
19Z
20Z
21S
1 in 0 1 2 3
1cm 0 1 2 3 4 5 6 7 8 9



PALESTINIAN POTTERY: LATE PRE-ISRAELITE PERIOD





PALESTINIAN POTTERY : LATE PRE-ISRAELITE PERIOD

SIDE

FRONT

TOP

1 in 0 1 2 3

BACK

SECTION

T. Sâfi

Martin, Hood & Larkin, Photolitho, Gt. Newport St. W.C.



PALESTINIAN POTTERY: TYPES OF HANDLES & SPOUTS

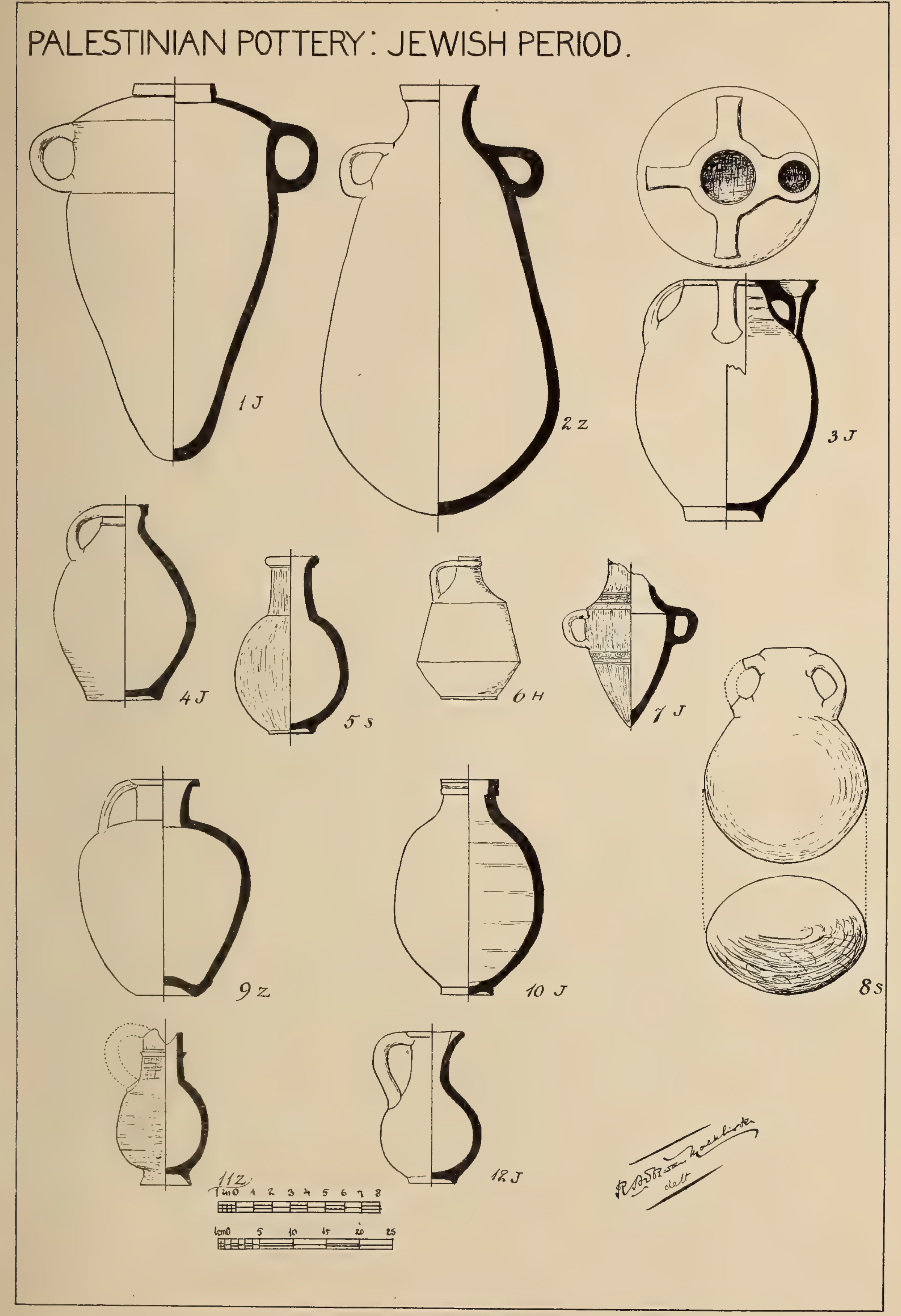
1 Z 2 Z 3 Z 4 Z 5 S 6 S 7 S 8 S 9 S 10 Z 11 Z 12 S 13 S 14 S 15 S 16 S 17 S 18 S 19 S 20 S

1 in 0 1 2

1 cm 0 1 2 3 4 5

R. A. Stewart Macalister delt.




PALESTINIAN POTTERY: JEWISH PERIOD.
1 J
2 Z
3 J
4 J
5 S
6 H
7 J
8 S
9 Z
10 J
11 Z
12 J
1 in 0 1 2 3 4 5 6 7 8
1 cm 0 5 10 15 20 25
delt





PALESTINIAN POTTERY: JEWISH PERIOD

1 H

2 Z

3 Z

4 H

5 Z

6 Z

7 Z

8 H

9 Z

10 Z

11 Z

12 Z

13 Z

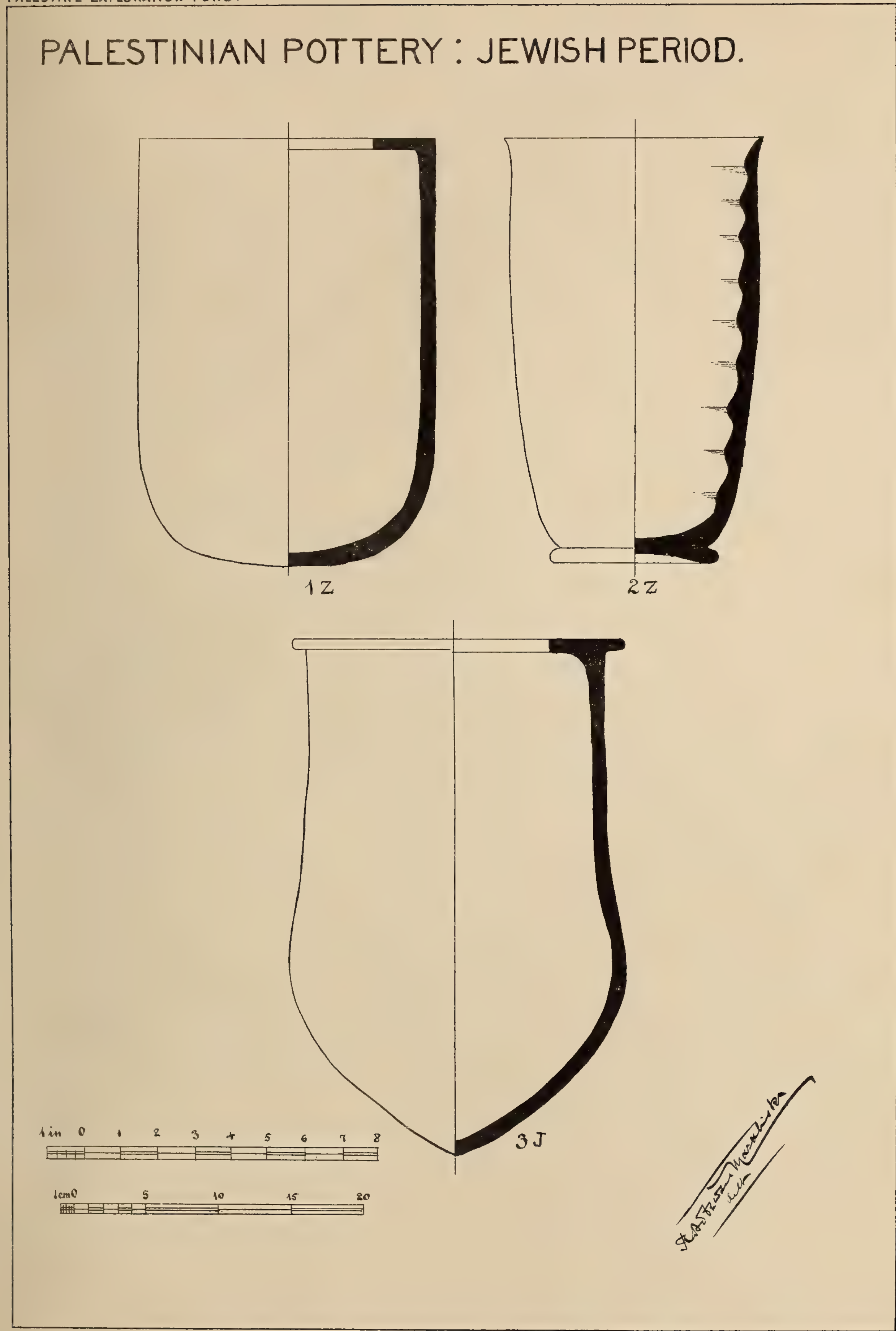
14 J

1 in 0 1 2 3

1 cm 0 1 2 3 4 5 6 7 8 9 10

Martin, Hood & Larkin, Photolitho Gt. Newport St. W.C.



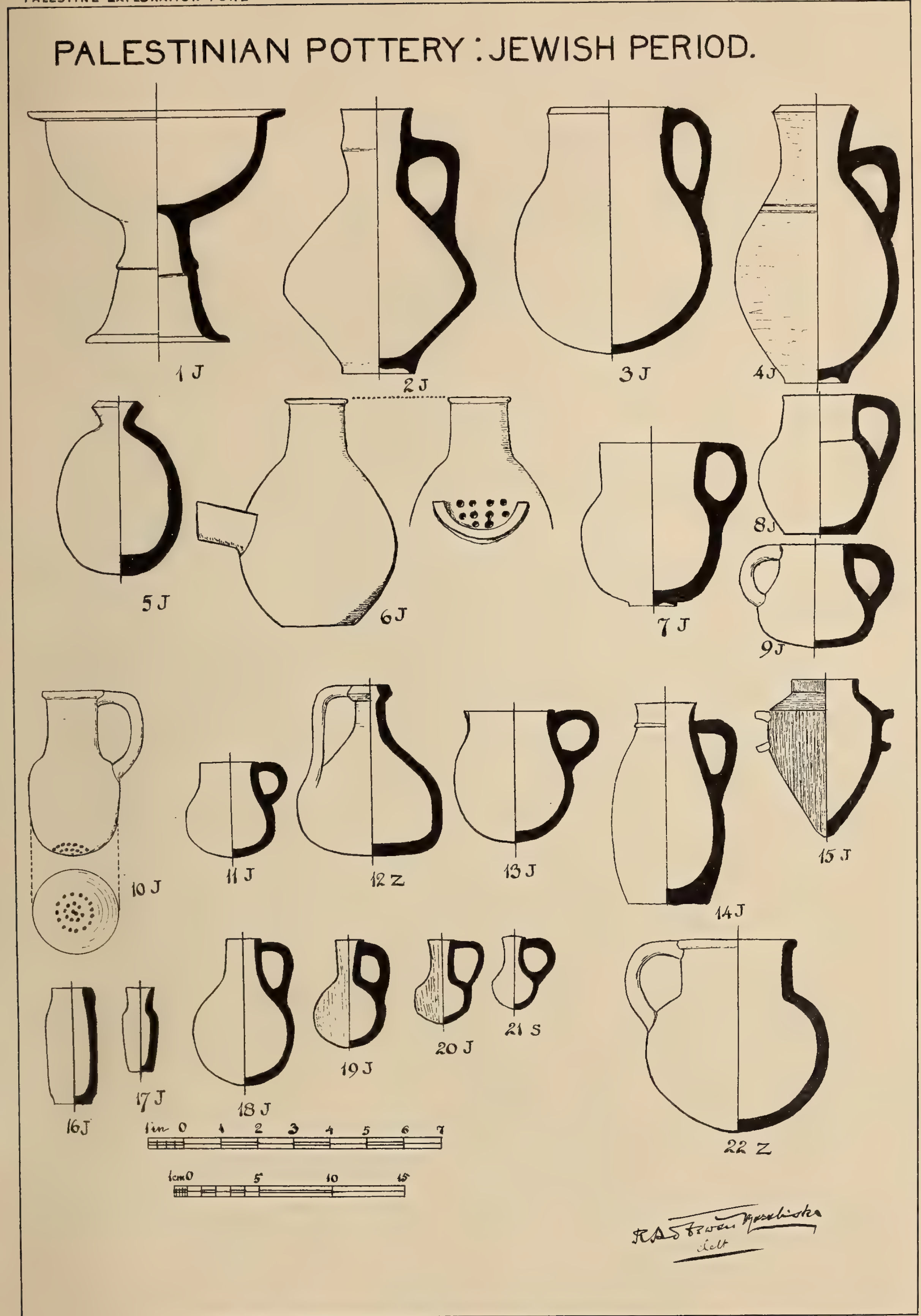

PALESTINIAN POTTERY: JEWISH PERIOD.
1 Z
2 Z
3 J
1 in 0 1 2 3 4 5 6 7 8
1 cm 0 5 10 15 20



PALESTINIAN POTTERY
JEWISH PERIOD

Martin, Hood & Larkin Photolitho Gt Newport St, W.C.




PALESTINIAN POTTERY: JEWISH PERIOD.
1 J
2 J
3 J
4 J
5 J
6 J
7 J
8 J
9 J
10 J
11 J
12 Z
13 J
14 J
15 J
16 J
17 J
18 J
19 J
20 J
21 S
22 Z
1in 0 1 2 3 4 5 6 7
1cm 0 5 10 15
delt



PALESTINIAN POTTERY: JEWISH PERIOD.

1 J

2 J

3 Z

4 Z

5 J

6 Z

7 Z

A

B

ribbing A to B enlarged.

8 Z

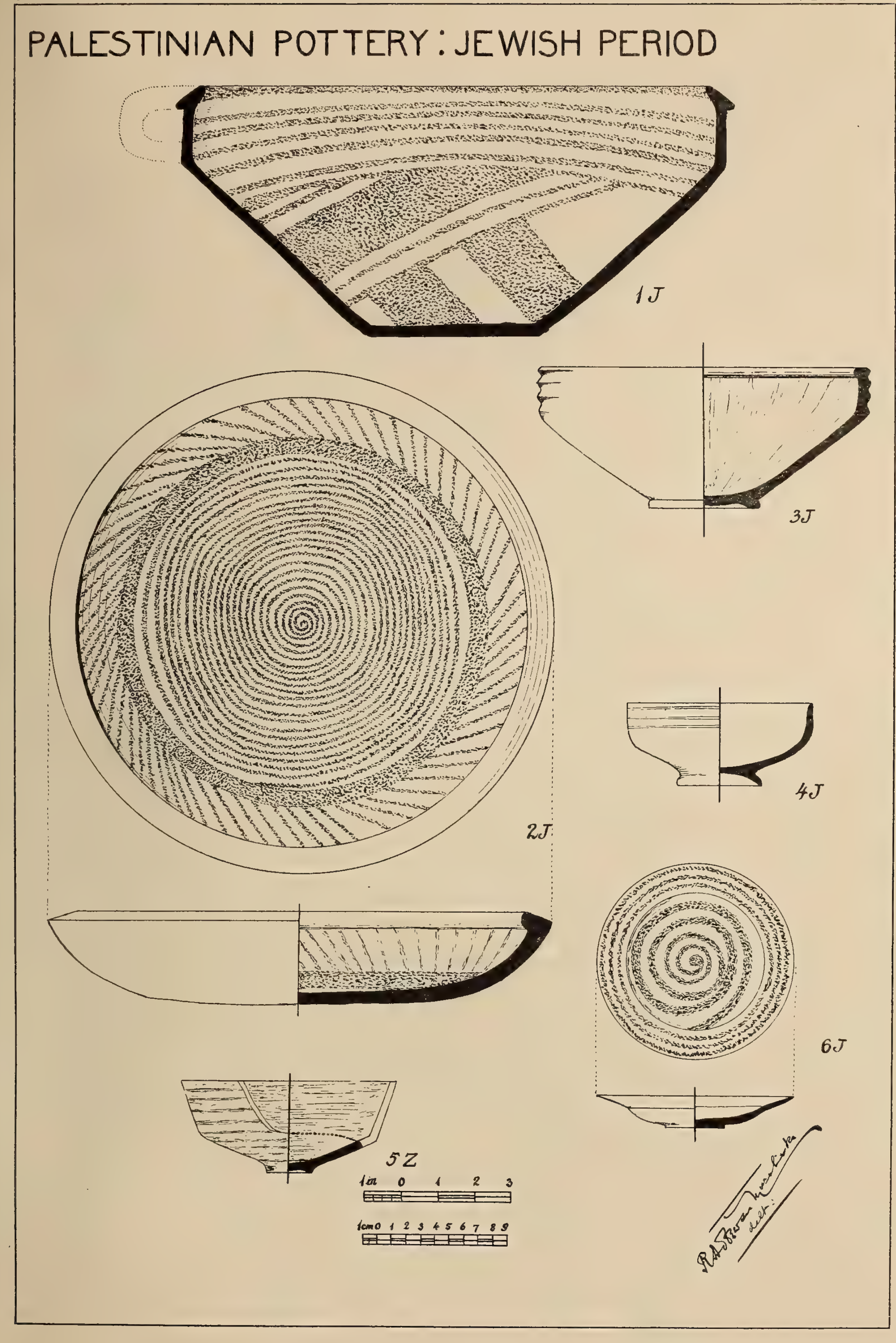
1 in 0 1 2 3 4 5 6 7

1 cm 0 5 10 15 20

delt

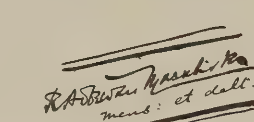
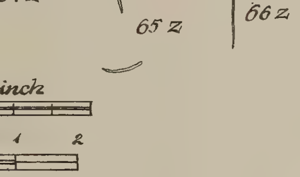
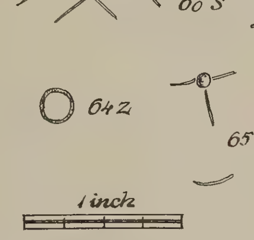
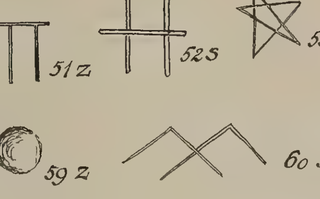
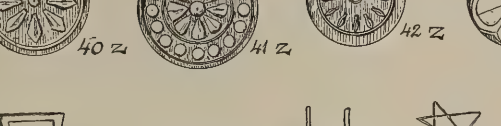
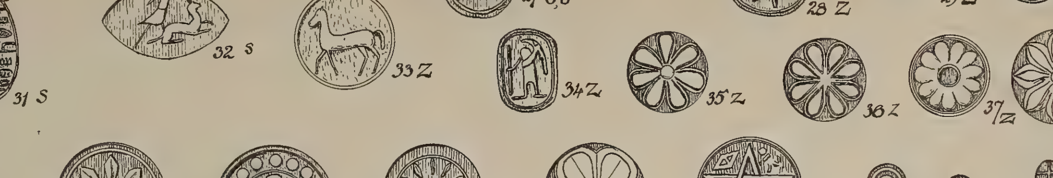


PALESTINIAN POTTERY: JEWISH PERIOD





PALESTINIAN POTTERY : JEWISH PERIOD

למלך חברן

למלך שוכה

למלך זיף

למלך

ממשת

1-18. Royal Stamps

19. " " , imitation (nail-mark)

20-30 Potters' Stamps with names

31-48 " " " devices

49-70 Nail-marks

1 inch

0 cm 1 2

R A Stewart Macalister mens: et delt:

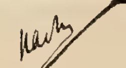
Martin, Hood & Larkin Photolitho, 61 Newport St W.C.



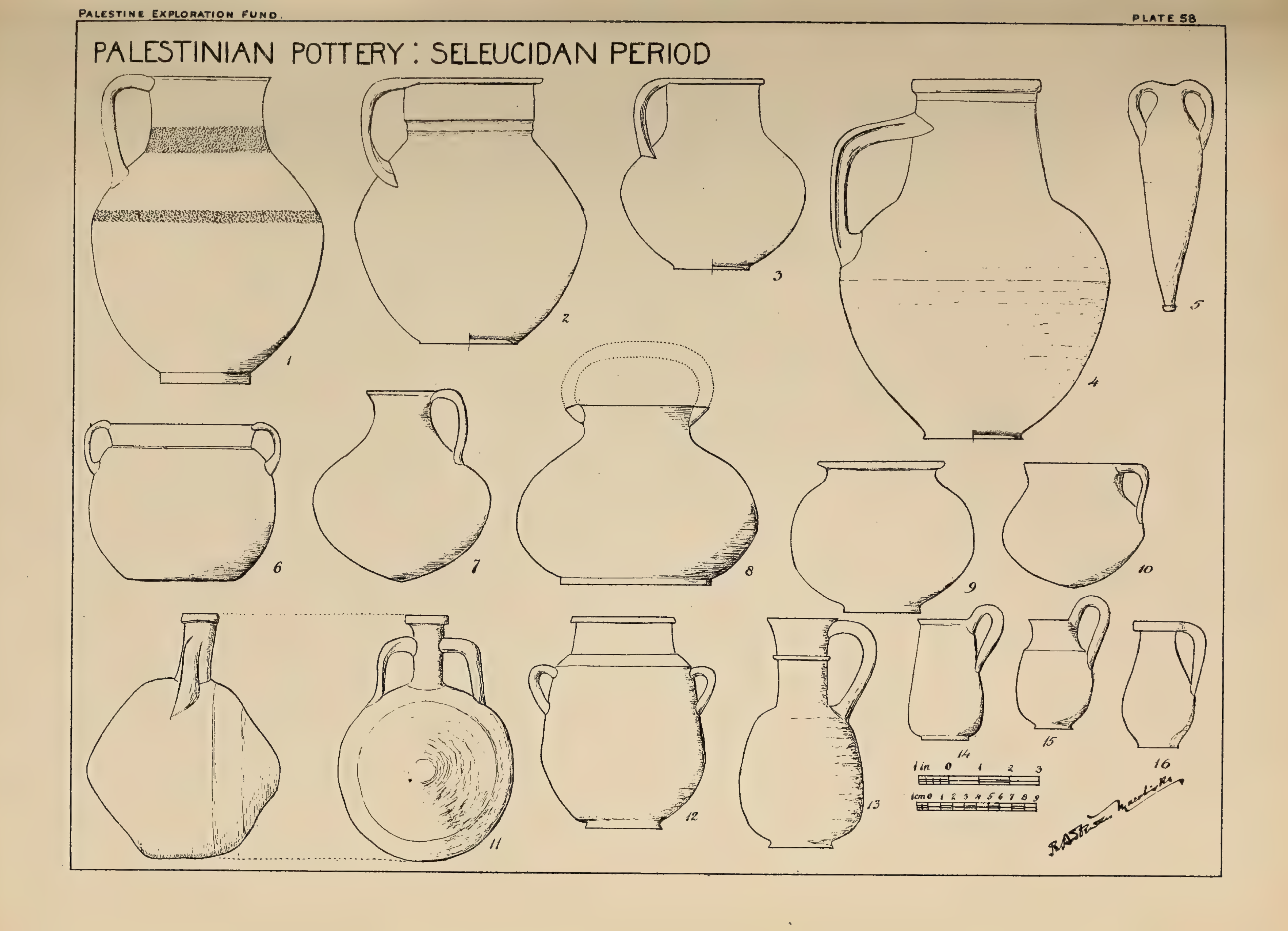
ALPHABET OF LETTERS USED IN OLD-HEBREW JAR-SEALS

	Jar - Seals	Dîbân	Siloam	Sidon		Jar - Seals	Dîbân	Siloam	Sidon
א	[illegible]	[illegible]	[illegible]	[illegible]	ל	[illegible] Z⁴. [illegible] S². [illegible] S². M². [illegible] H²	[illegible]	[illegible]	[illegible]
ב	[illegible] H². [illegible] H⁴	[illegible]	[illegible]	[illegible]	מ	[illegible] H². [illegible] M². [illegible] M². [illegible] S². [illegible] M². S⁴. [illegible] Z⁴. [illegible] Z⁴	[illegible]	[illegible]	[illegible]
ג		[illegible]	[illegible]	[illegible]	נ	[illegible] H⁴. [illegible] H². [illegible] H². [illegible] WE	[illegible]	[illegible]	[illegible]
ד	[illegible]	[illegible]	[illegible]	[illegible]	ס		[illegible]		[illegible]
ה	[illegible] S². [illegible] S⁴	[illegible]	[illegible]	[illegible]	ע	O. O. ∘	∘	O	O
ו	[illegible] S⁴. [illegible] S². [illegible]	[illegible]	[illegible]	[illegible]	פ	[illegible] Z⁴. [illegible] Z²	[illegible]	[illegible]	[illegible]
ז	[illegible] Z⁴. [illegible] Z². [illegible] Z²	[illegible]	[illegible]	[illegible]	צ	[illegible] WE. [illegible] WE.	[illegible]	[illegible]	[illegible]
ח	[illegible] H². [illegible] H⁴ [illegible]	[illegible]	[illegible]	[illegible]	ק		[illegible]	[illegible]	[illegible]
ט				[illegible]	ר	[illegible] H². [illegible]	[illegible]	[illegible]	[illegible]
י	[illegible] Z⁴]	[illegible]	[illegible]	[illegible]	ש	W S². S⁴. M². W. W M². W. W.	W	W	W
כ	[illegible] Z⁴. [illegible] S⁴. [illegible] S². [illegible] S². [illegible] M². [illegible] H². [illegible] S⁴	[illegible]	[illegible]	[illegible]	ת	+ M². [illegible] M². [illegible]	X	×	[illegible]

Ligatures: [illegible] כה S². [illegible] שן S⁴

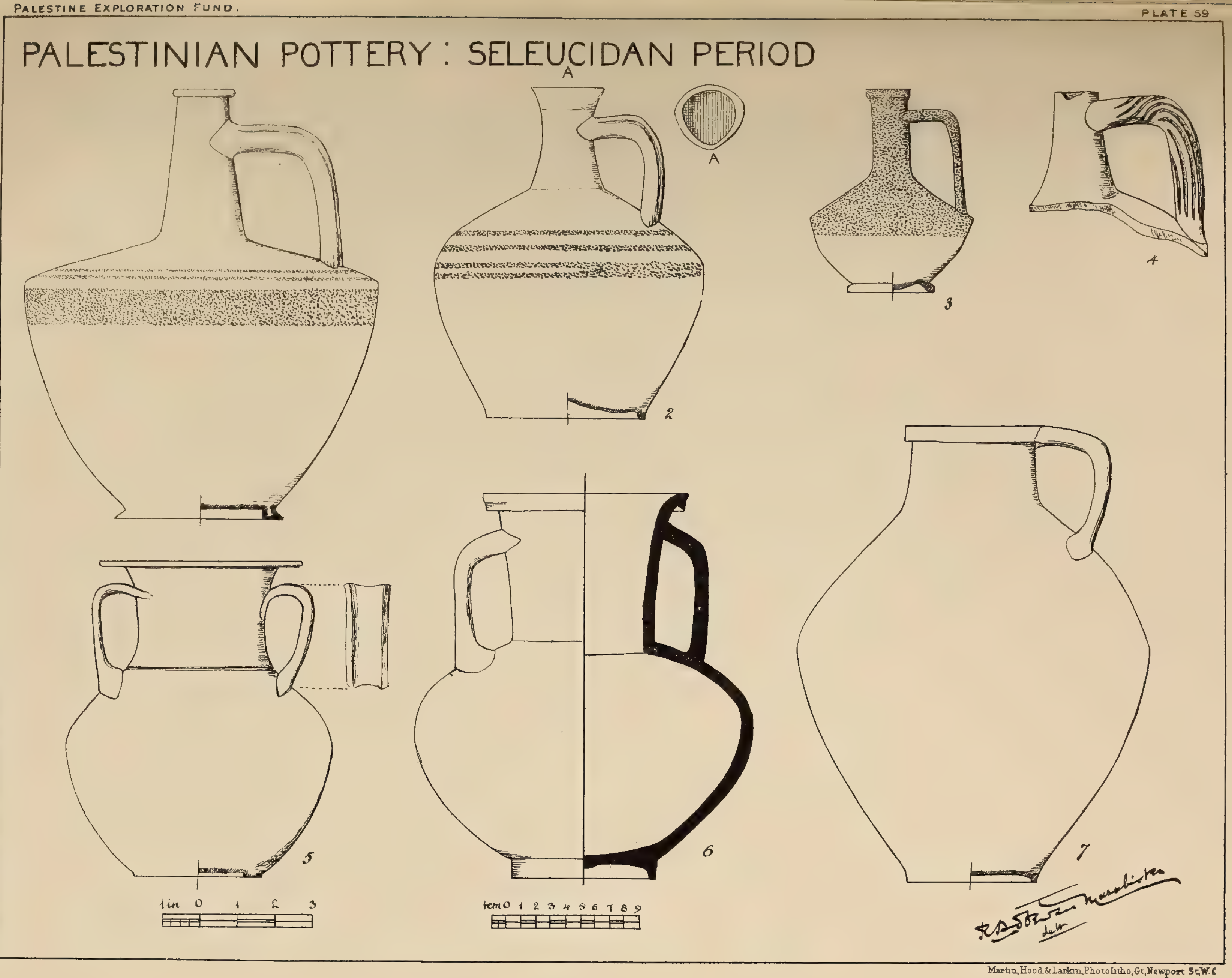





PALESTINIAN POTTERY: SELEUCIDAN PERIOD
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
1 in 0 1 2 3
1cm 0 1 2 3 4 5 6 7 8 9



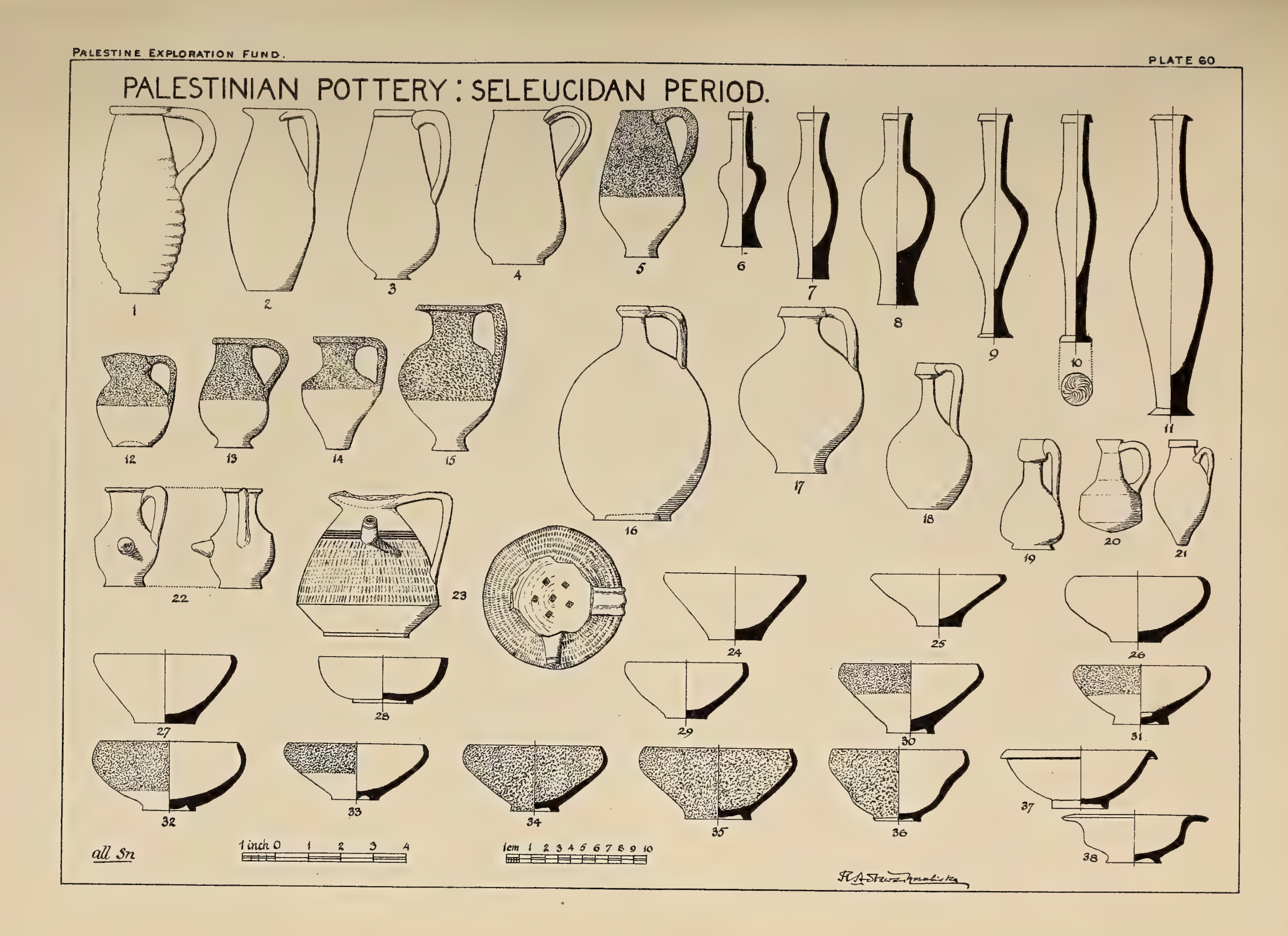
PALESTINIAN POTTERY: SELEUCIDAN PERIOD



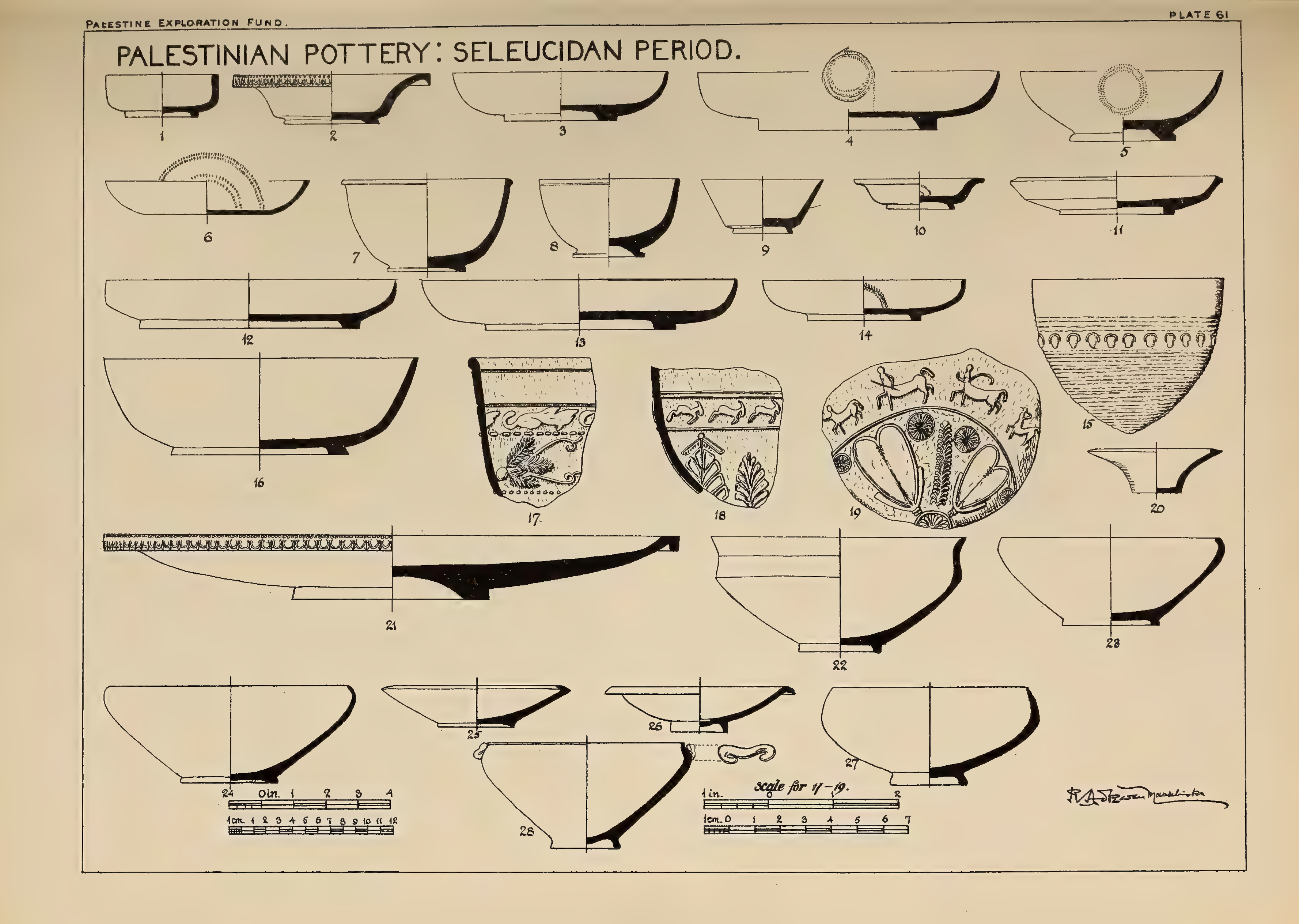
Martin, Hood & Larkin, Photolitho, Gt. Newport St. W.C.



PALESTINIAN POTTERY : SELEUCIDAN PERIOD.

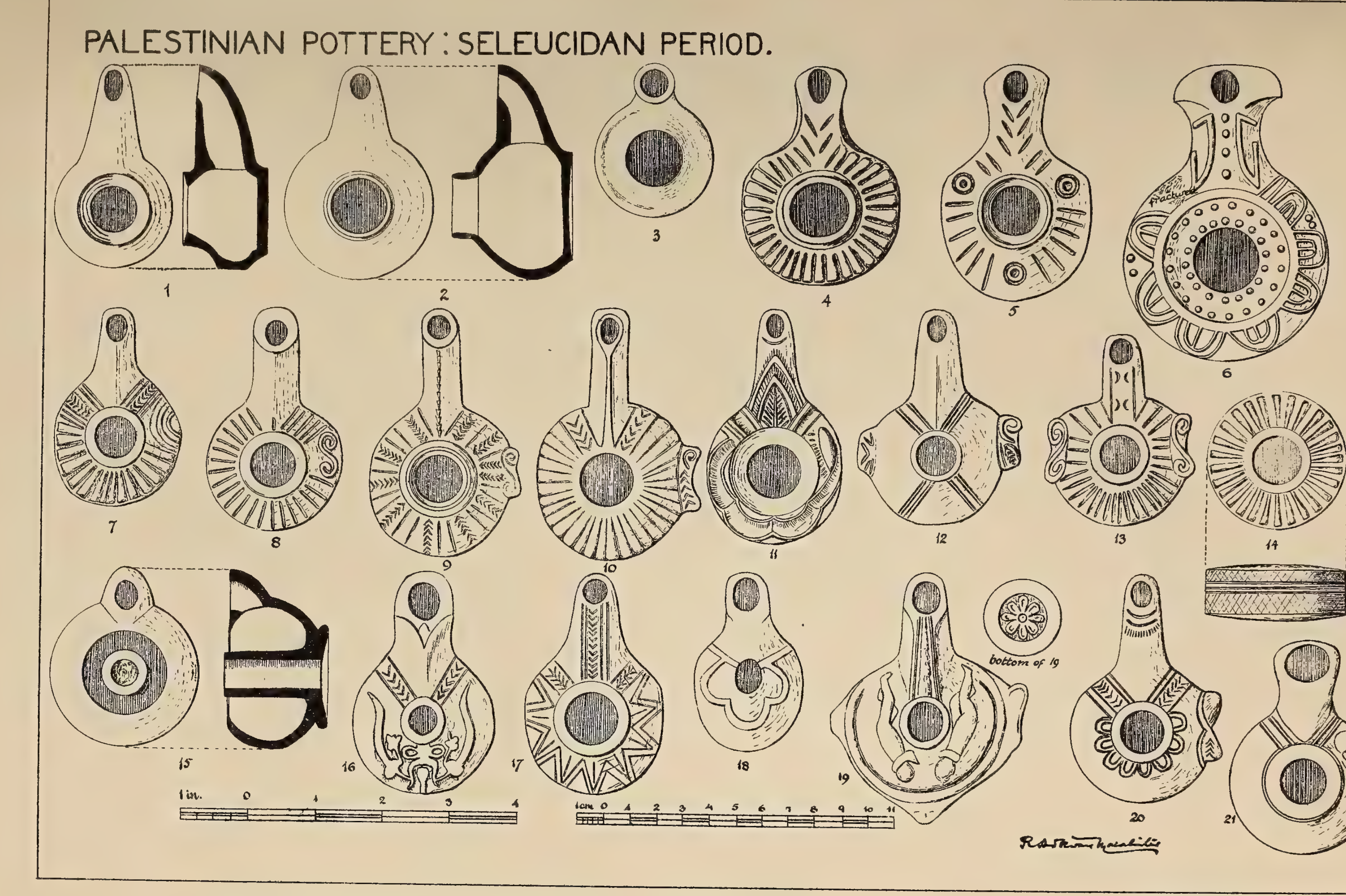





PALESTINIAN POTTERY: SELEUCIDAN PERIOD.
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
0 in. 1 2 3 4
1 cm. 1 2 3 4 5 6 7 8 9 10 11 12
scale for 17-19.
1 in. 0 1 2
1 cm. 0 1 2 3 4 5 6 7



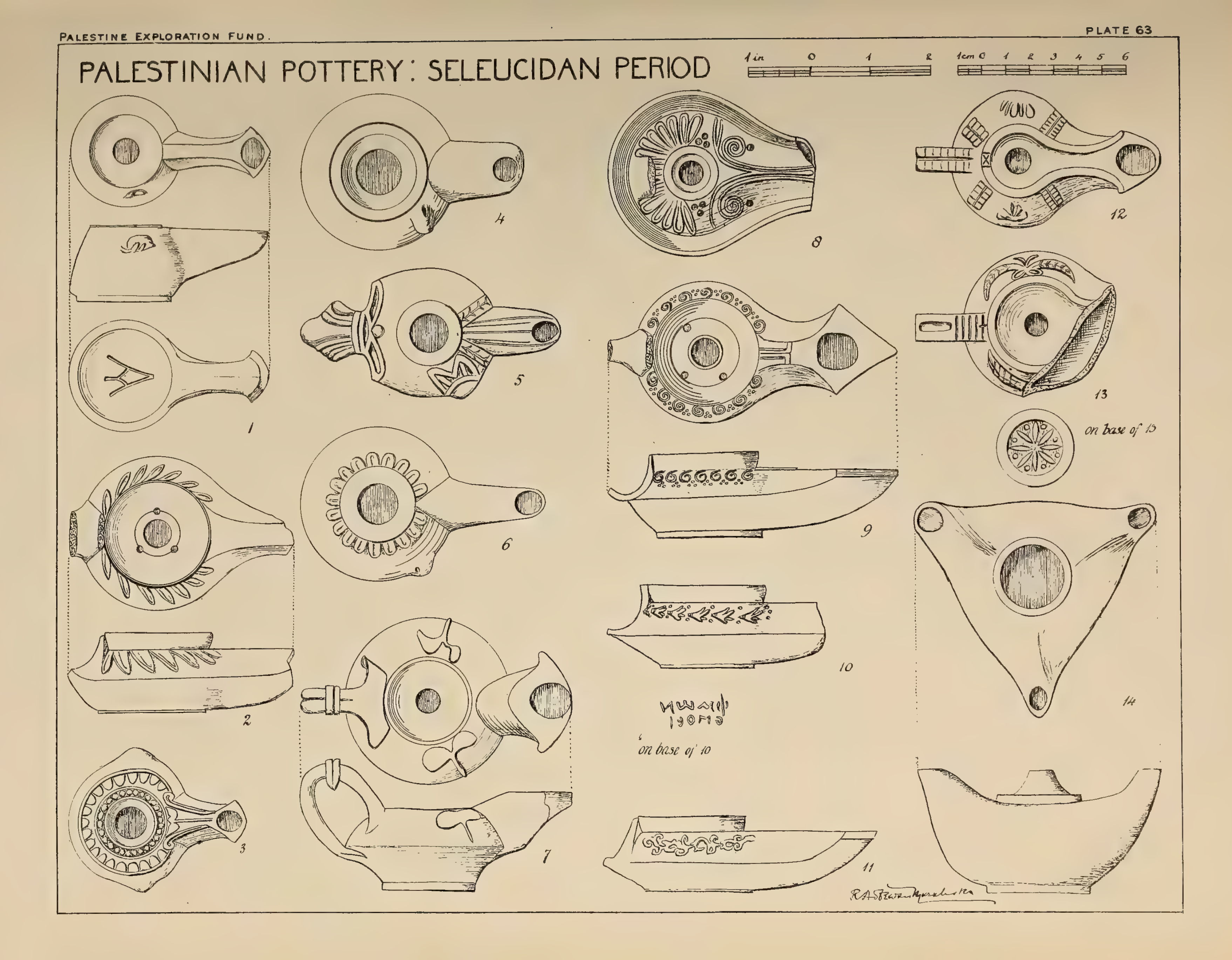
PALESTINIAN POTTERY: SELEUCIDAN PERIOD.



Martin, Hood & Larkin, Photolitho, Gt. Newport St. W.C.



PALESTINIAN POTTERY: SELEUCIDAN PERIOD





TELL SANDAHANNAH EXCAVATION: SEALS FROM GREEK AMPHORA HANDLES

	α	β	γ	δ	ε	ζ	η	θ	ι	κ	λ	μ	ν	ξ	ο	π	ρ	σ	τ	υ	φ	χ	ψ	ω
I	Α			Δ	Ε	Ζ	Η	Θ	Ι	Κ	Λ	Μ	Ν	Ξ	Ο	Π	Ρ	Σ	Τ	Υ	Φ	Χ		Ω
II	Α		Γ	Δ	Ε				Ι	Κ	Λ	Μ	Ν		ο	Γ	Ρ	Σ	Τ	Υ	Φ			
III	Α	Β		Δ	Ε				Ι	Κ	Λ	Μ		Ξ	Ο	Π	Ρ	Σ	Τ	Υ	Φ			Ω
IV	Α	Β	Γ	Δ	Є		Η	θ	Ι	Κ	Λ	Μ	Ν		˚	Π	Ρ	C	Τ	Υ	Φ	Χ		ω
V	Α			Δ	Ε		Η	Θ	Ι			Μ	Ν		ο	Π	Ρ	Σ		Υ		Χ		
VI	Α	Β		Δ	Ε				Ι	Κ	Λ	Μ		Ξ	ο	Π	Ρ	Σ	Τ	Υ		Χ		
VII	Α			Δ	Ε	Ι		Φο				Μ	Ν			Π		Σ		Υ	Φ		Ψ	Ω
VIII	Α				Ε				Ι	Κ	Λ				Ο	Π	Ρ	Σ		Υ		Χ		Ω

TYPICAL ALPHABETS

1 inch.

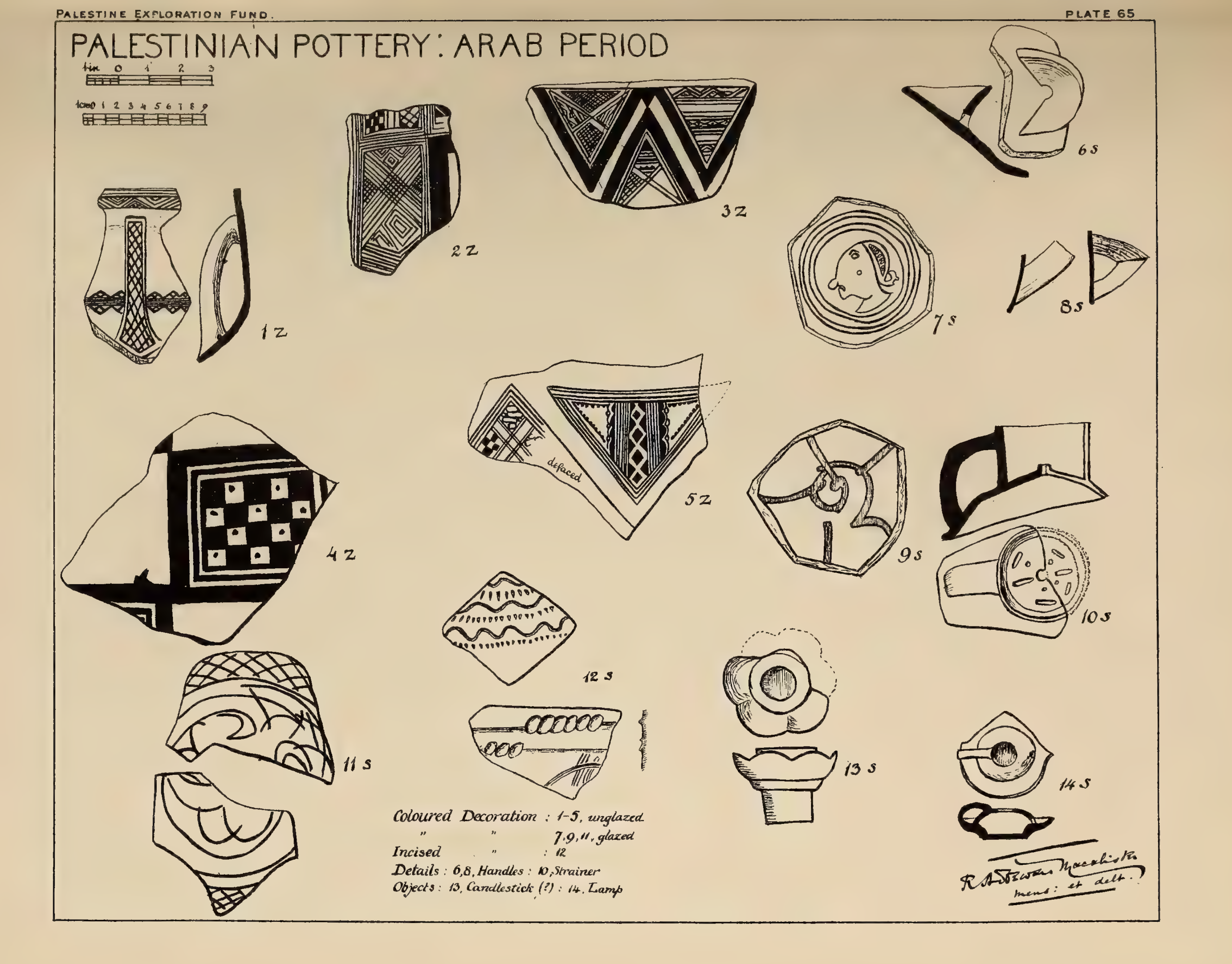
1 cm. 0 1 2

F. J. Bliss

Martin Hood & Larkin Lith. 51 to Gt Newport St. W.C.



PALESTINIAN POTTERY: ARAB PERIOD



Coloured Decoration : 1–5, unglazed
" " 7, 9, 11, glazed
Incised " : 12
Details : 6, 8, Handles : 10, Strainer
Objects : 13, Candlestick (?) : 14, Lamp



PALESTINIAN POTTERY: LAMPS

1 2 3 4

for lamps of the Seleucidan period see plates 62, 63

5 6

7 S 8 Sn 9 Sn

10 Sn 11 S

1 in. 0 1 2 3

1 cm.

R. A. S. Macalister



STATUETTES &c.: I. HUMAN.

a b 1 S c 2 S

a b 3 S 4 S 5 S

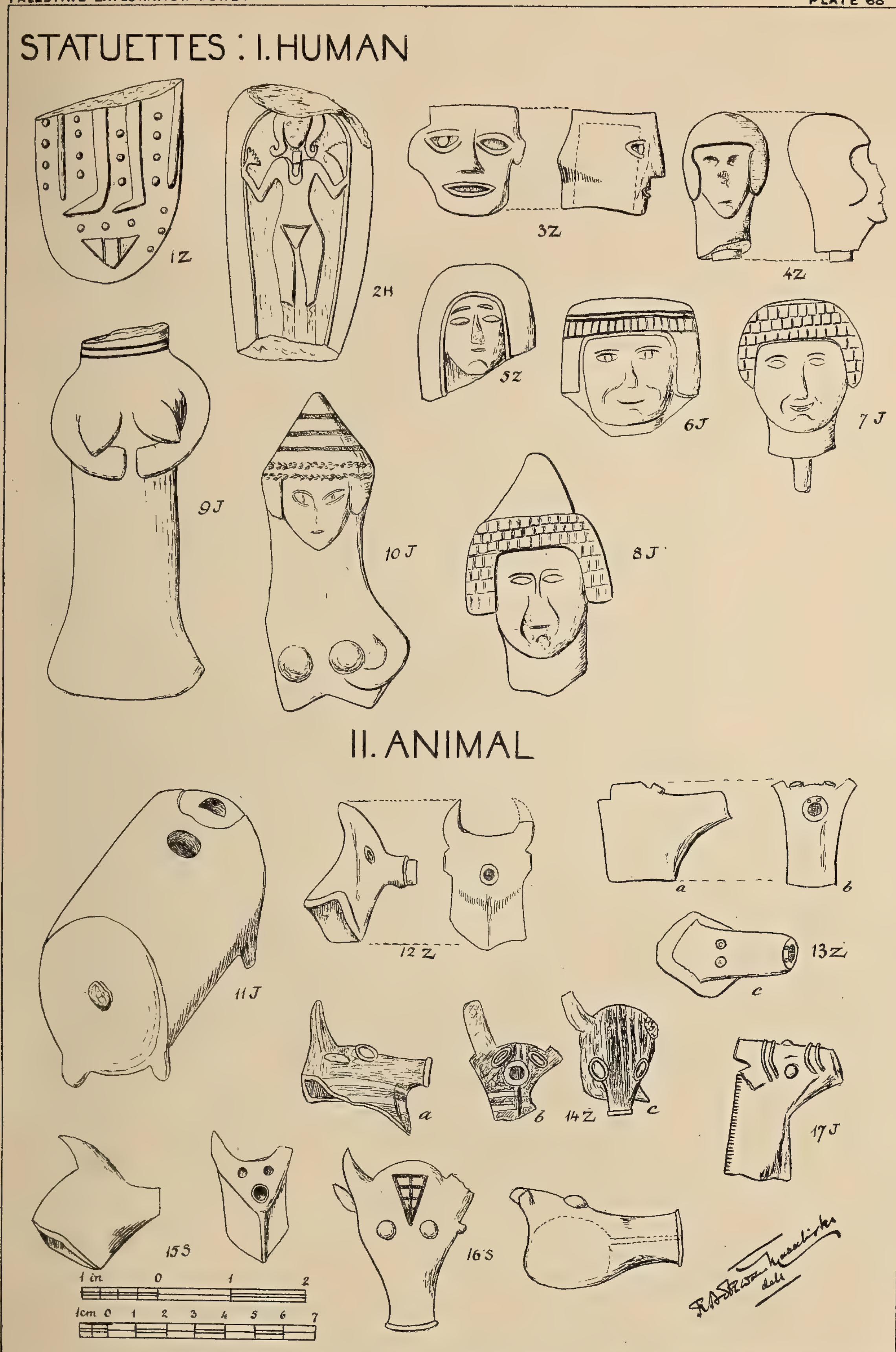
6 S 7 Z 8 J 9 J

11 Z 10 Z 14 Z 12 Z 13 Z 16 S. 15 S

0 in 1 2
0 cm 1 2 3 4 5

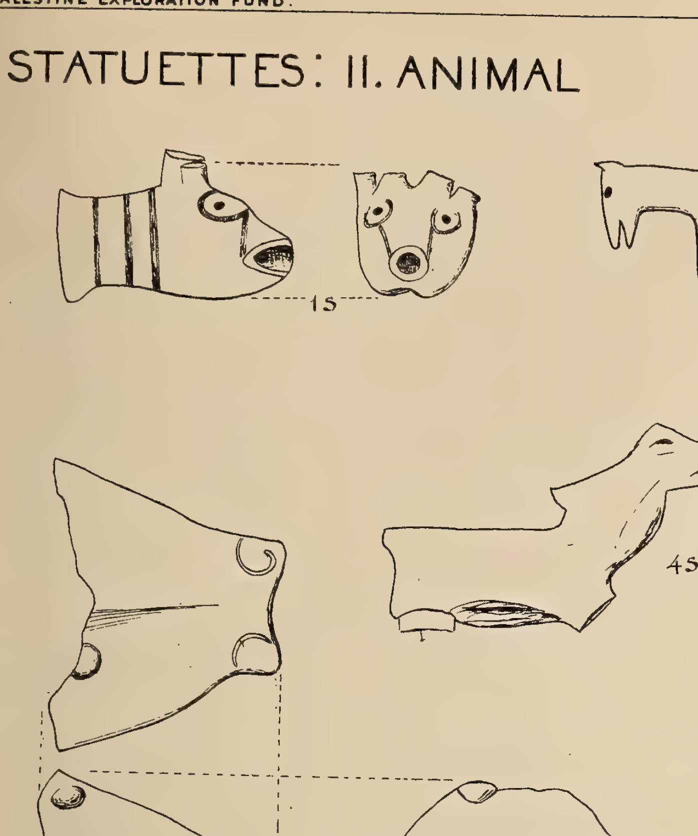
R. A. Stewart Macalister del.

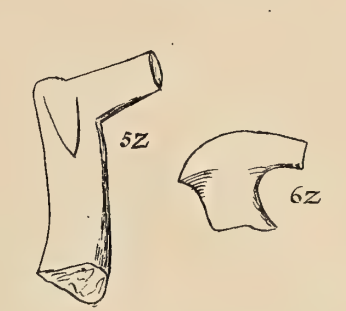


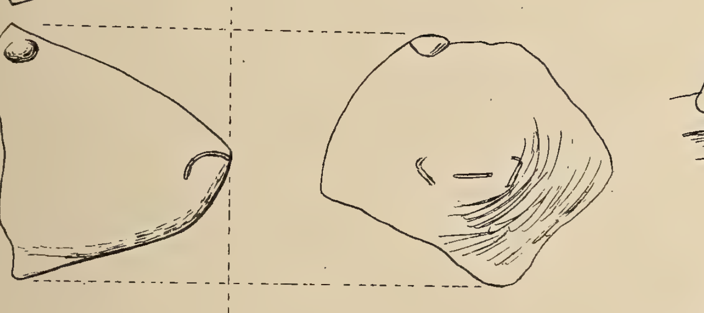

STATUETTES: I. HUMAN
1Z
2H
3Z
4Z
5Z
6J
7J
9J
10J
8J
II. ANIMAL
11J
12Z
a
b
13Z
c
a
b
14Z
c
17J
15S
16S
1 in 0 1 2
1cm 0 1 2 3 4 5 6 7

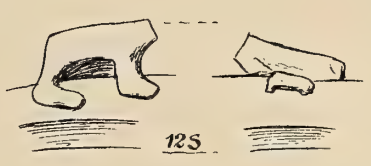


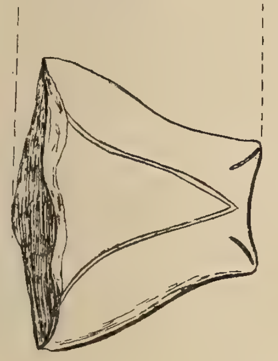
STATUETTES: II. ANIMAL

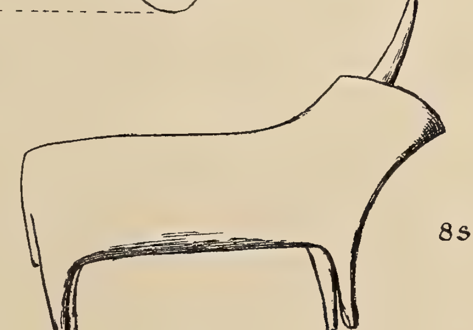




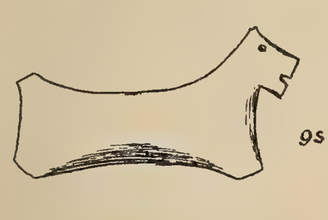


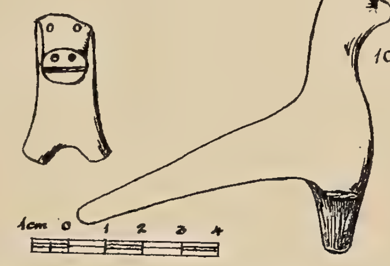


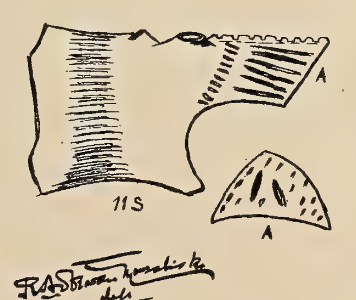
















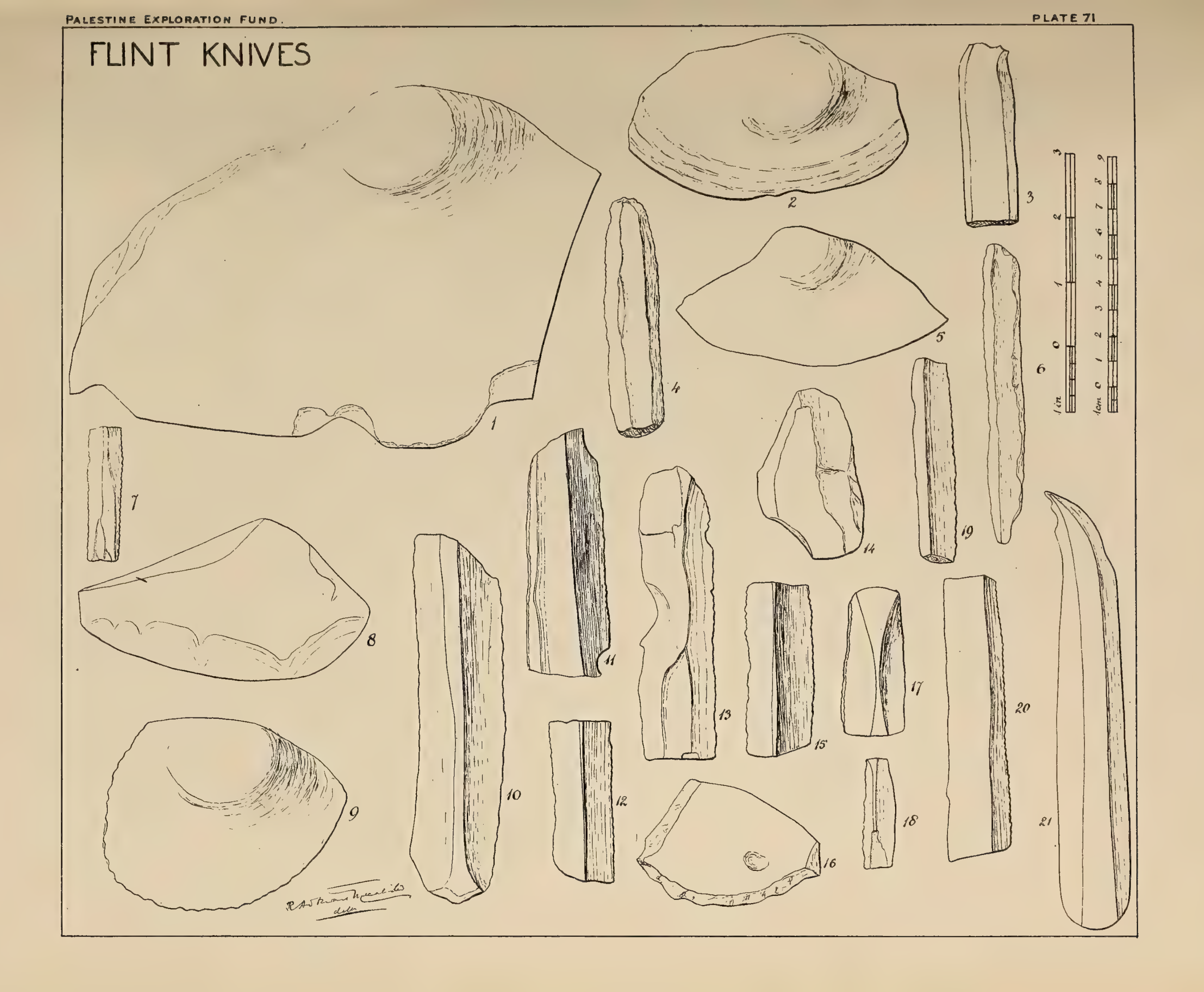
STATUETTES: III. LATE FIGURES

1S 2S 3S 4S 5S 6S 7S, Sn 8S 9S 10S 11S 12S 13S 14Sn 15Sn

0 in 1 2

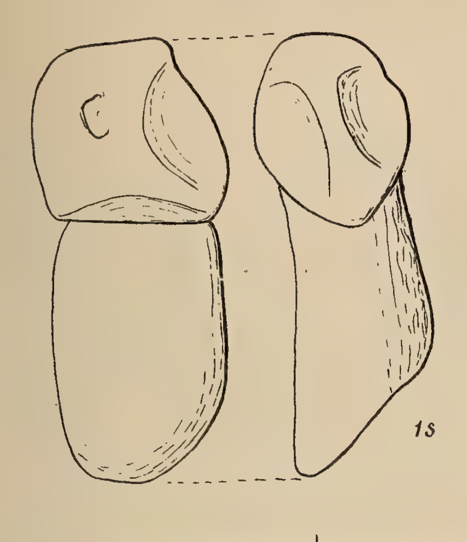
0 cm 1 2 3 4 5

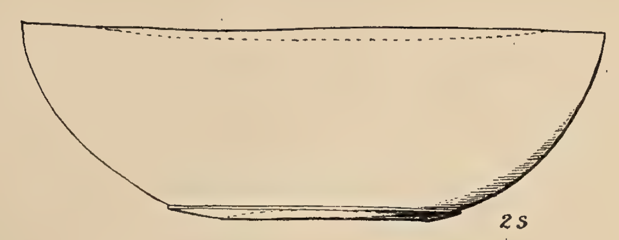


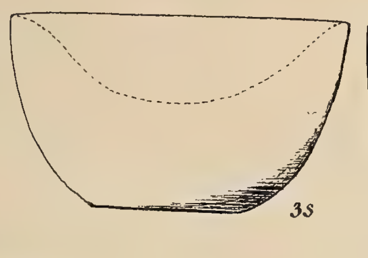

FLINT KNIVES
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
1 in 0 1 2 3
1 cm 0 1 2 3 4 5 6 7 8 9

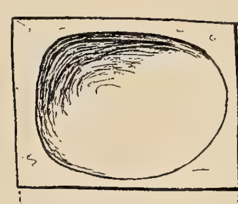


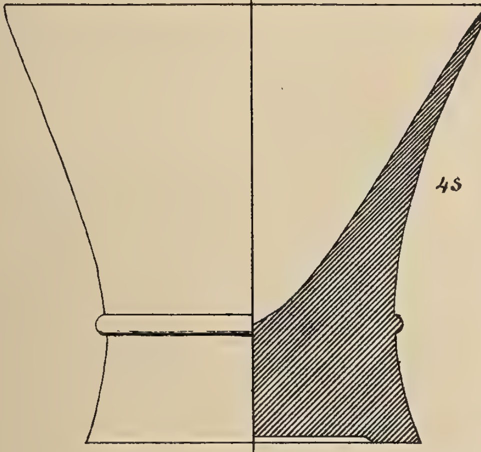
STONE OBJECTS

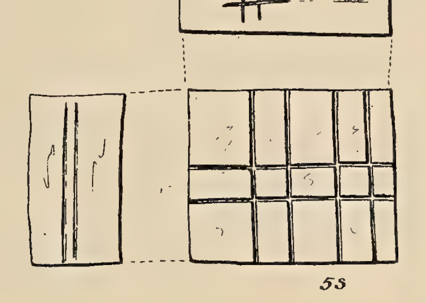


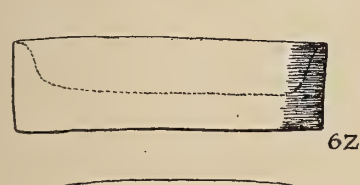


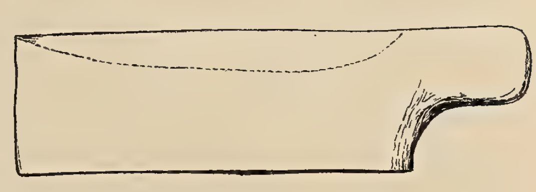


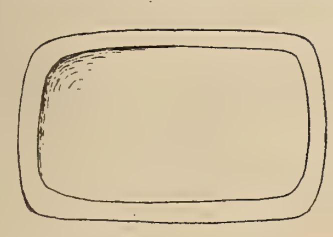


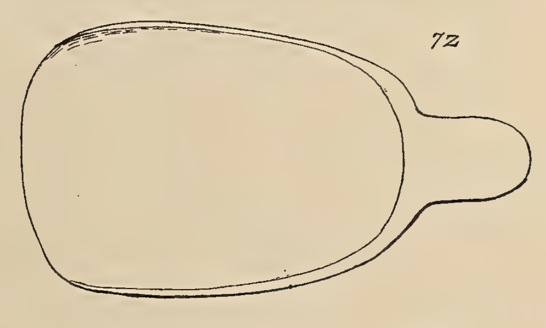


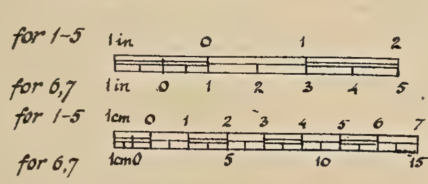


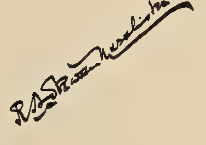






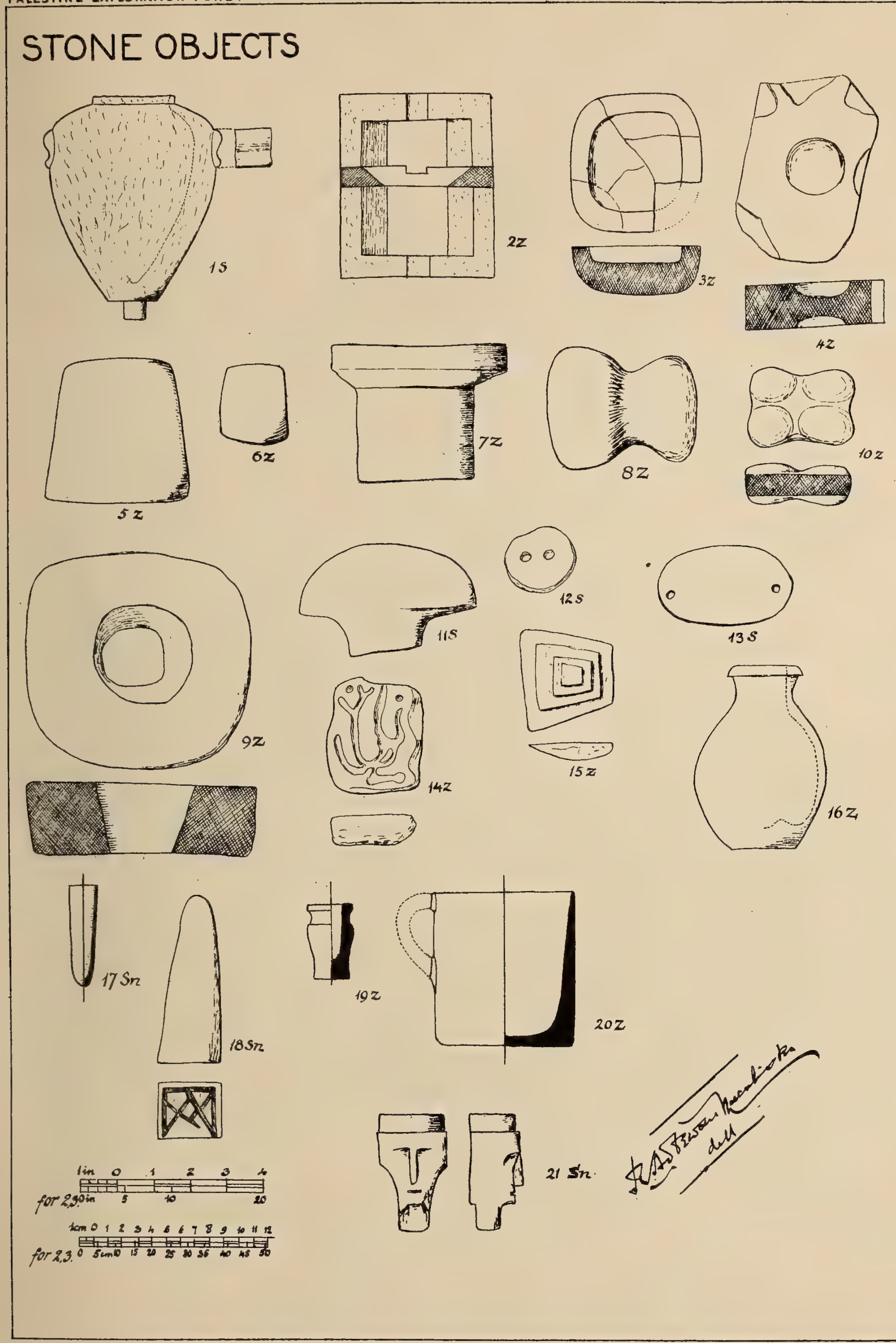








STONE OBJECTS





TELL EJ-JUDEIDEH

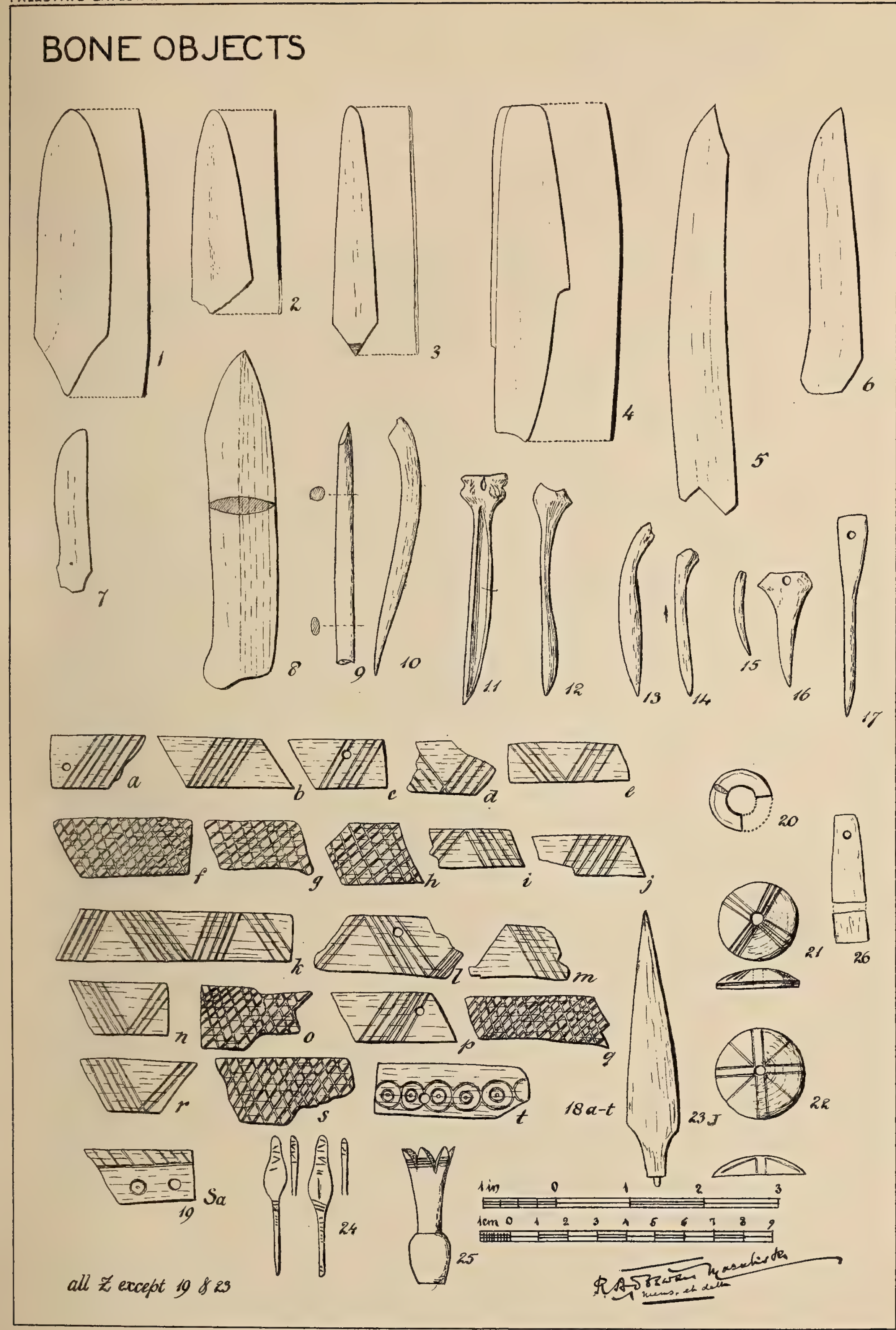
GROUP OF ASSOCIATED STONE OBJECTS

Martin Hood & Larkin, Photolitho, Gt. Newport St. W.C.



FRAGMENTS OF STONE STATUETTES: TELL EṢ-ṢÂFI.




BONE OBJECTS
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
a
b
c
d
e
f
g
h
i
j
k
l
m
n
o
p
q
r
s
t
18 a-t
Sa
19
20
21
22
23 J
24
25
26
1 in 0 1 2 3
1cm 0 1 2 3 4 5 6 7 8 9
all Z except 19 & 23



BONE OBJECTS

1 2 3 section 4 5 6

7 8 9

10 A -A a b c d

1 inch 0 1 2 3 4

all S

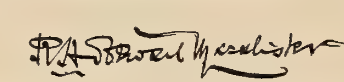
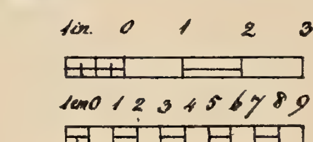
F. J. Bliss.

R. A. Stewart Macalister

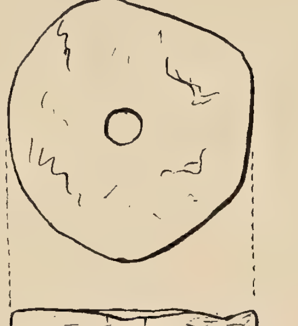
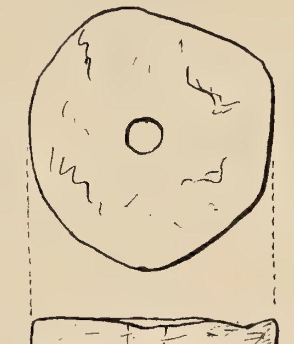
Martin, Hood & Larkin, Photolitho Gt. Newport St, W.C.



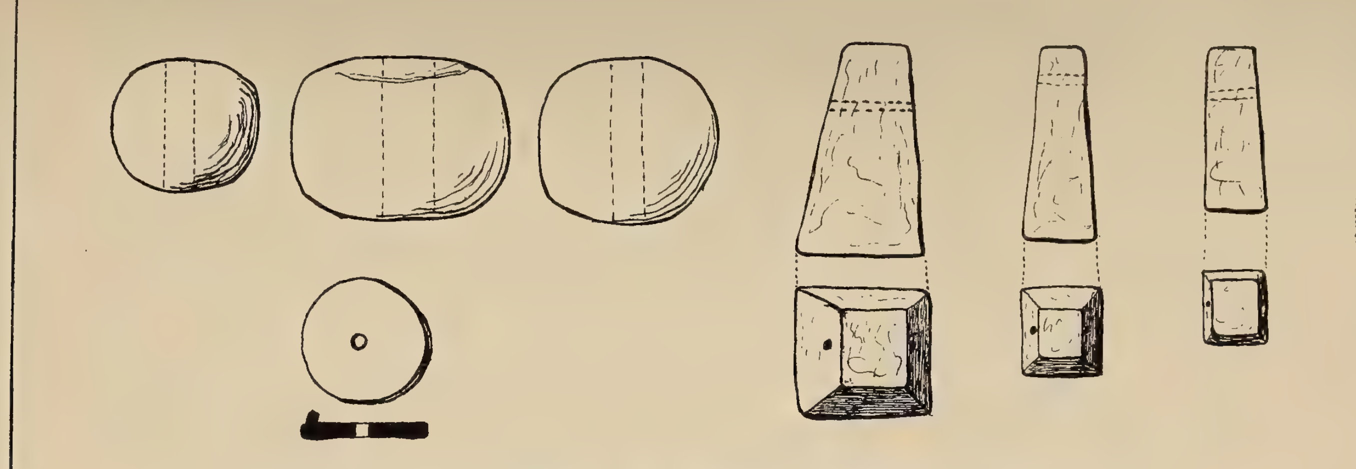
TERRA-COTTA OBJECTS.



ANALOGOUS OBJECTS IN STONE : SPINDLE WHORLS &c.

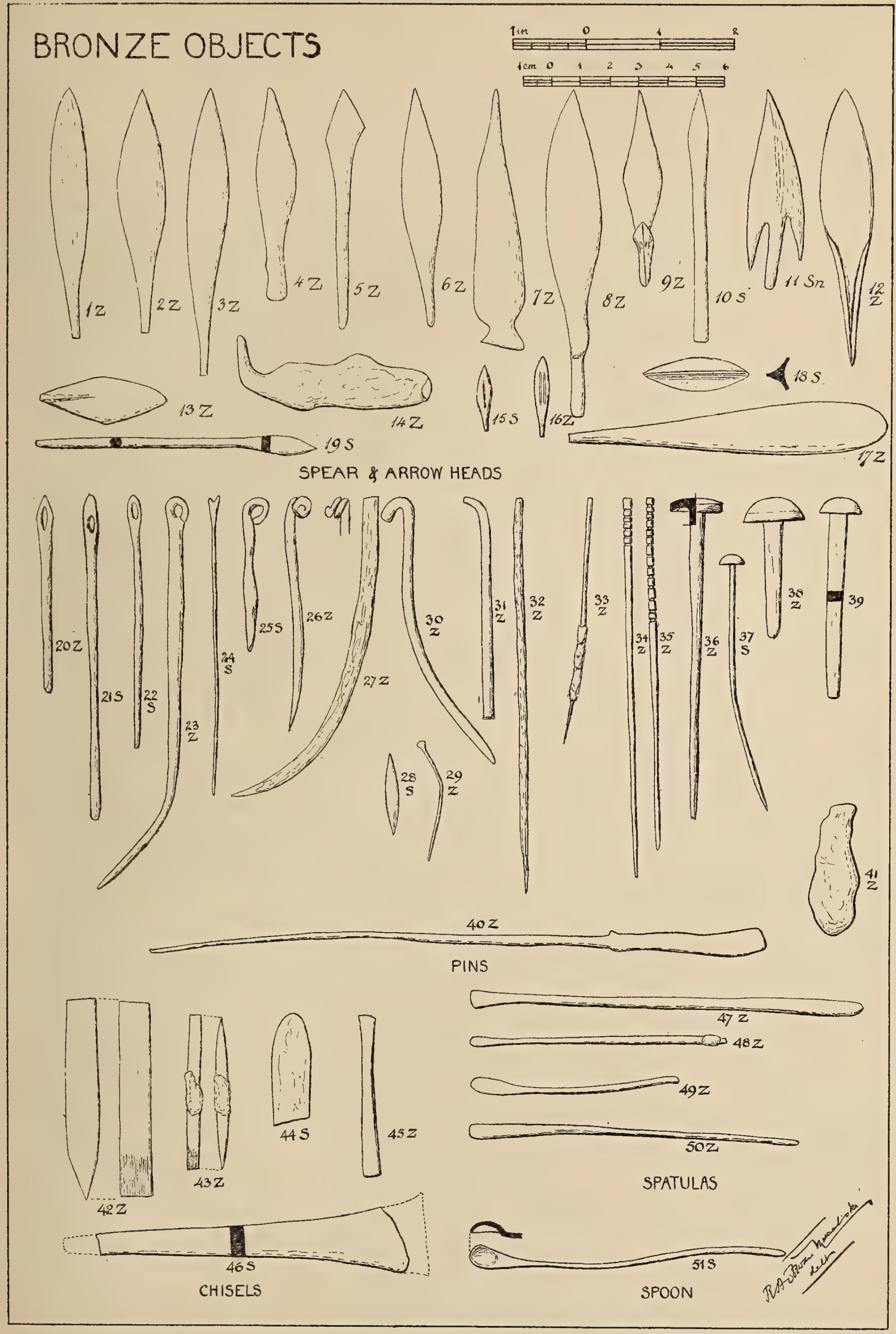


all z

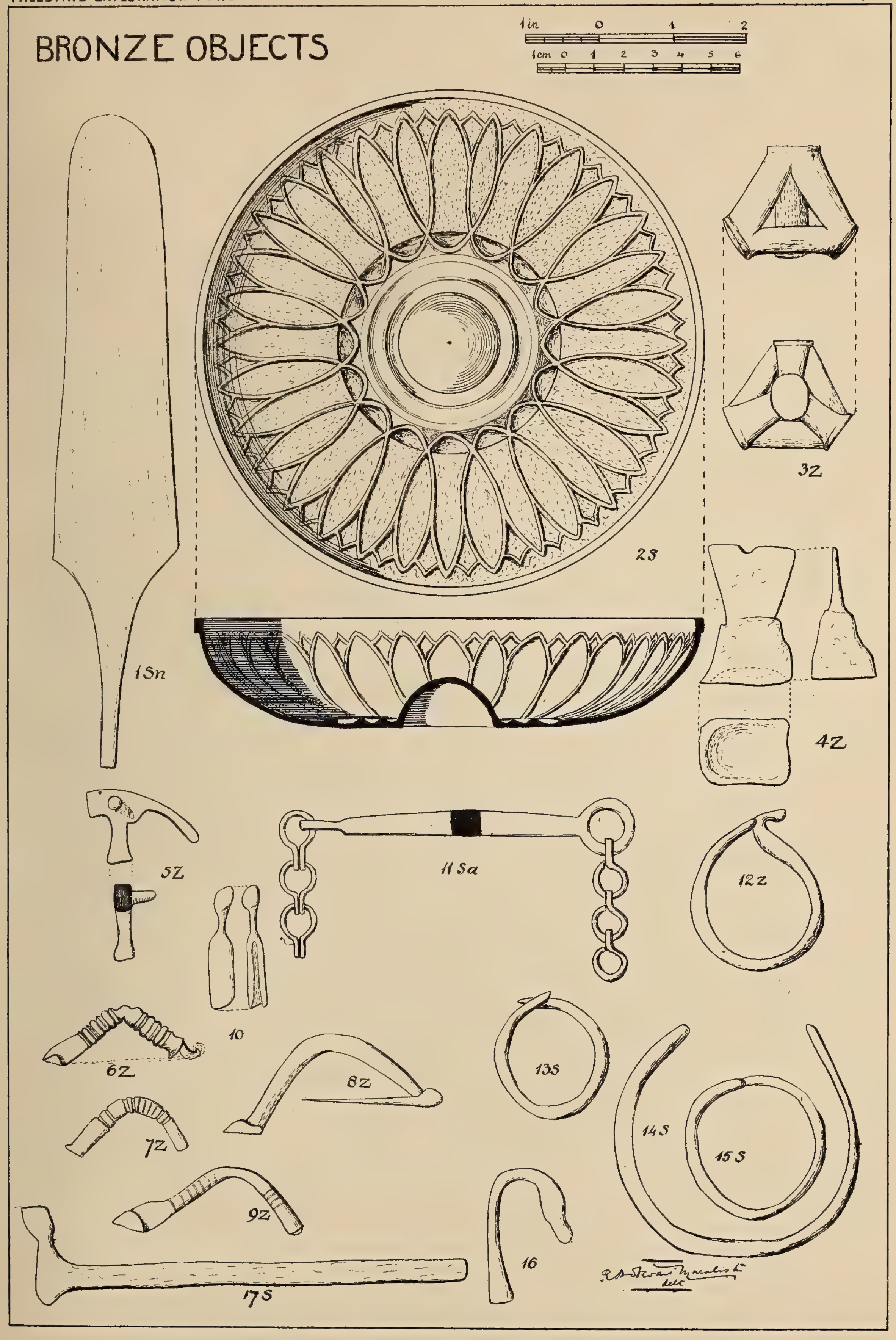
R. A. Stewart Macalister

Martin, Hood & Larkin, Photo Litho, Gt. Newport St, W.C.

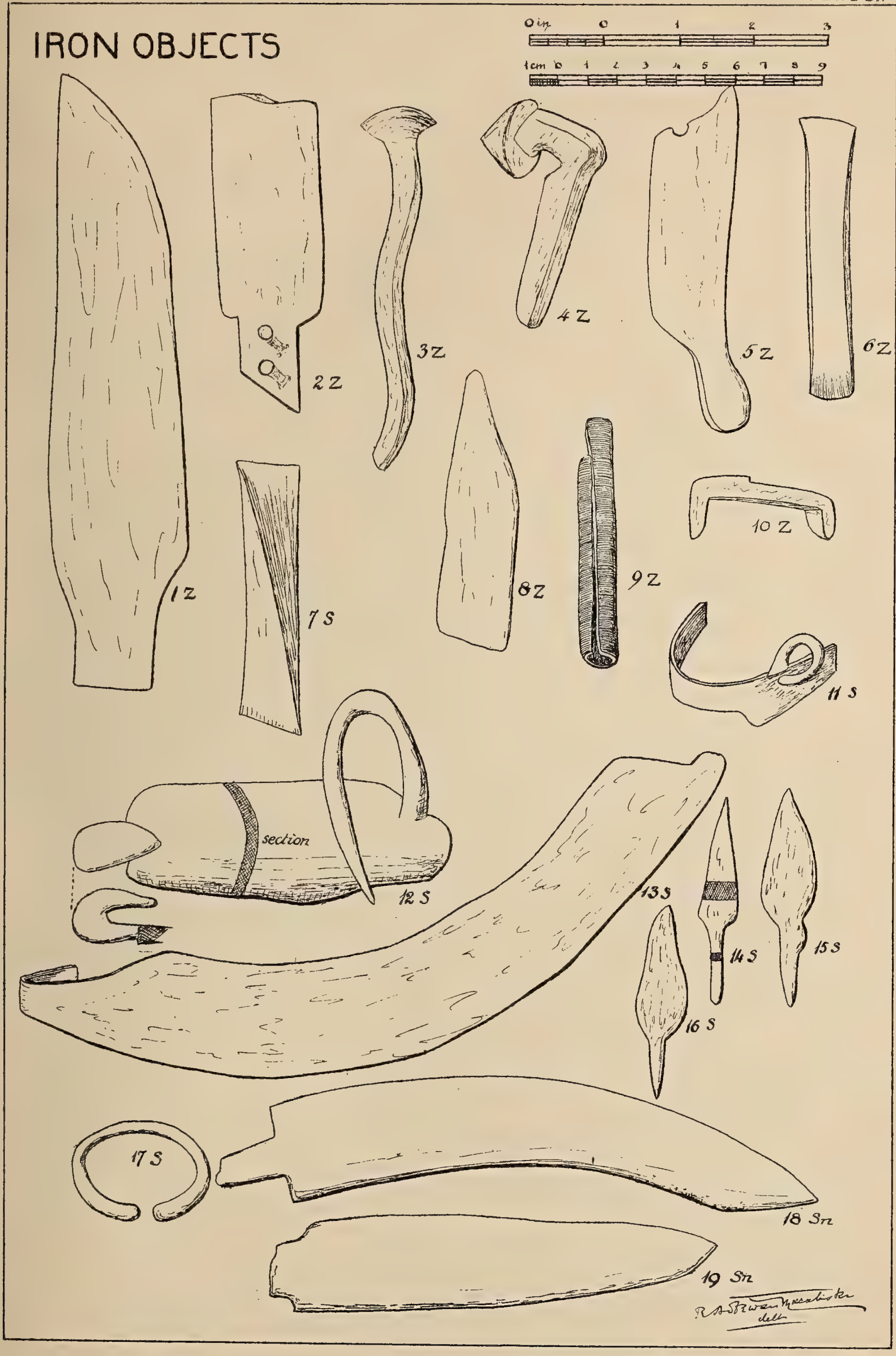



BRONZE OBJECTS
SPEAR & ARROW HEADS
PINS
CHISELS
SPATULAS
SPOON




BRONZE OBJECTS
1in 0 1 2
1cm 0 1 2 3 4 5 6
1Sn
2S
3Z
4Z
5Z
6Z
7Z
8Z
9Z
10
11Sa
12z
13S
14S
15S
16
17S
R.A.S. Macalister delt




IRON OBJECTS
0 in. 0 1 2 3
1 cm 0 1 2 3 4 5 6 7 8 9
1 Z
2 Z
3 Z
4 Z
5 Z
6 Z
7 S
8 Z
9 Z
10 Z
11 S
section
12 S
13 S
14 S
15 S
16 S
17 S
18 Sn
19 Sn



GROUPED POTTERY DEPOSITS

Martin Hood & Larkin, Photolitho 'Gt Newport St, W.C.



SCARABS AND SCARABOIDS


1 Z


2 Z


3 Z


4 Z


5 S


6 S

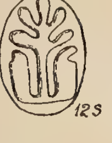

7 S


8 S


9 S


10 S


11 S


12 S


13 S


14 Z


15 Z


16 Z


17 Z


18 Z


19 S

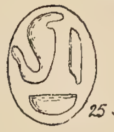

20 S

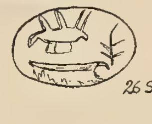

21 S


22 Z


23 S

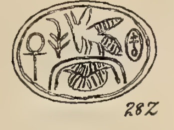

24 S

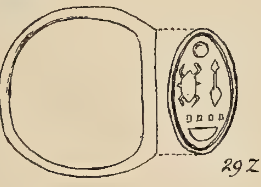

25 S

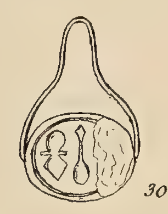

26 S




27 Z


28 Z

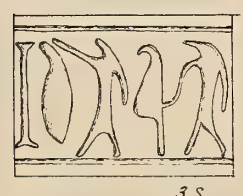

29 Z


30 S

CYLINDERS

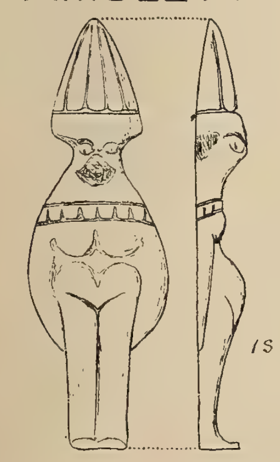

1 Z

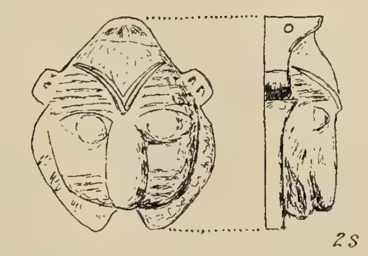

2 Z

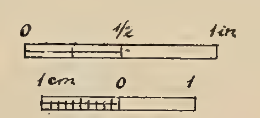

3 S


4 S

AMULETS


1 S


2 S



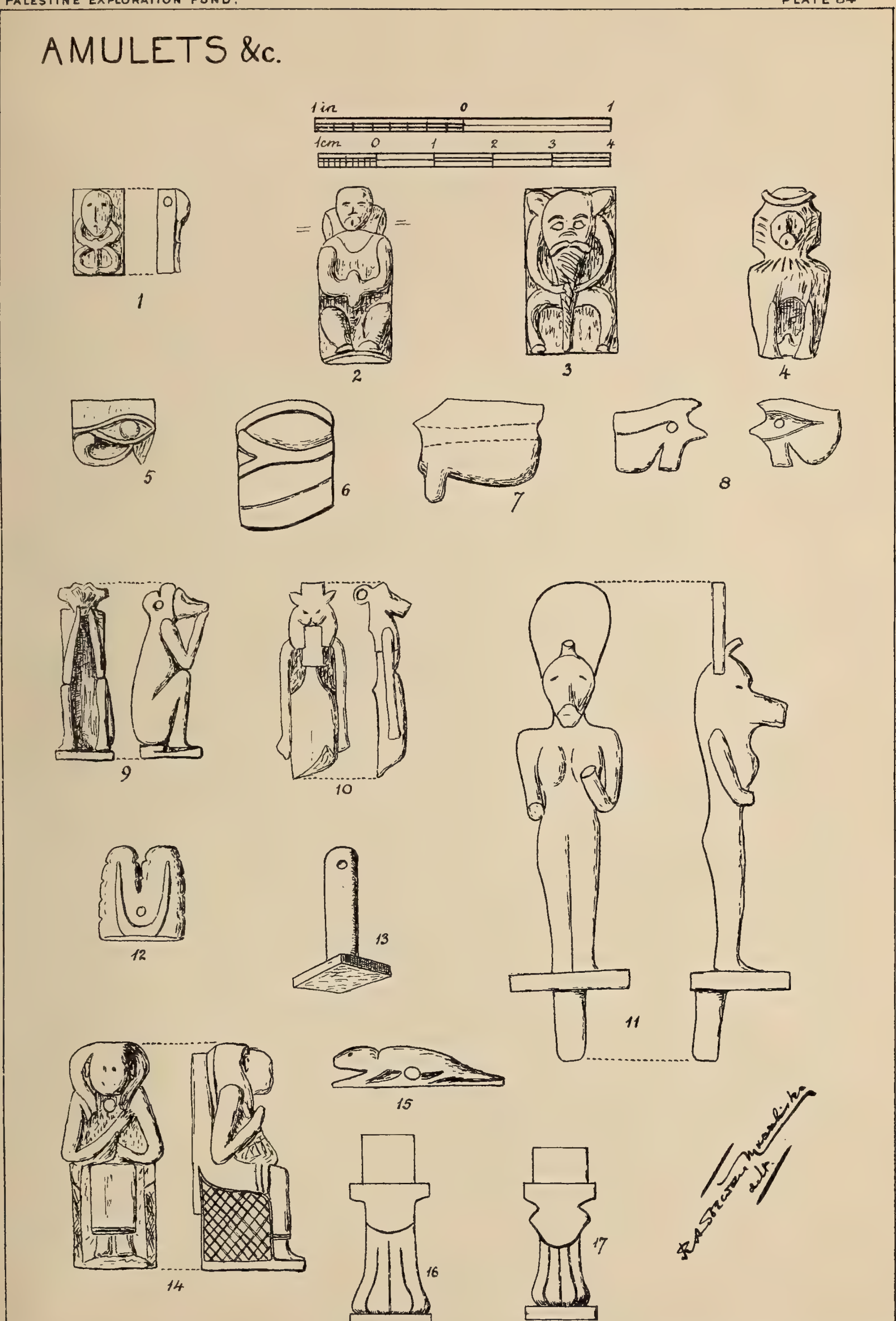

3 S

R.A.S. Macalister delt.

Martin, Hood & Larkin Photo-litho 61 Newport St. W.C.



AMULETS &c.



Martin, Hood & Larkin, Photolitho, Gt. Newport St. W.C.

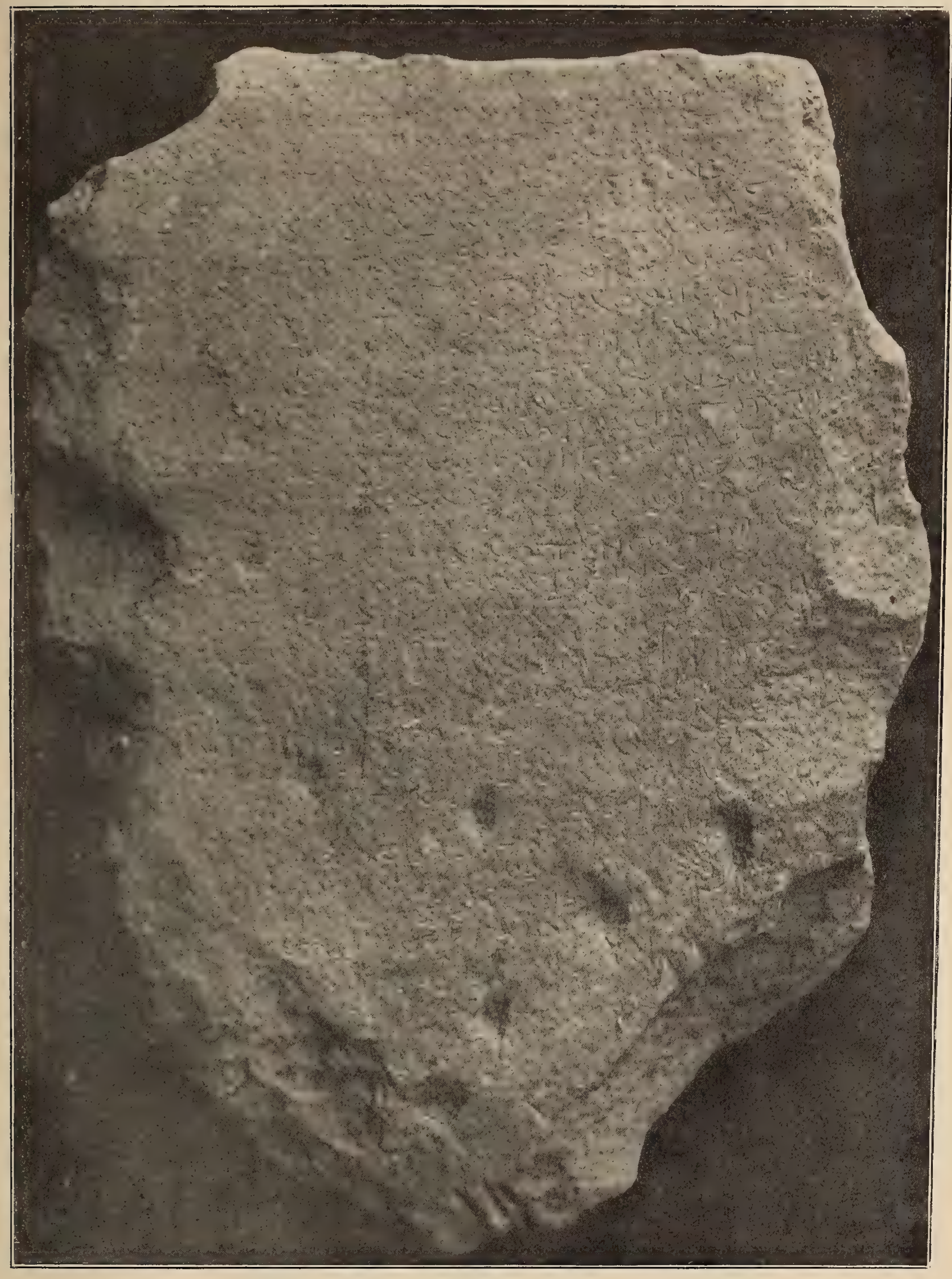


TELL SANDAḤANNAH : FIGURES IN LEAD

1 inch 0 1

Maclure, Hood & Larkin Photo-litho Gt Newport St, W.C.





INSCRIBED TABLET: TELL SANDAḤANNAH.





INSCRIBED TABLET: TELL SANDAḤANNAH





INSCRIBED TABLETS: TELL SANDAḤANNAH.



TELL EJ-JUDEIDEH

AREA OF CUP-MARKED ROCK OUTCROPS

10 links 0 10 20 30 40 50

TYPES OF CUPS

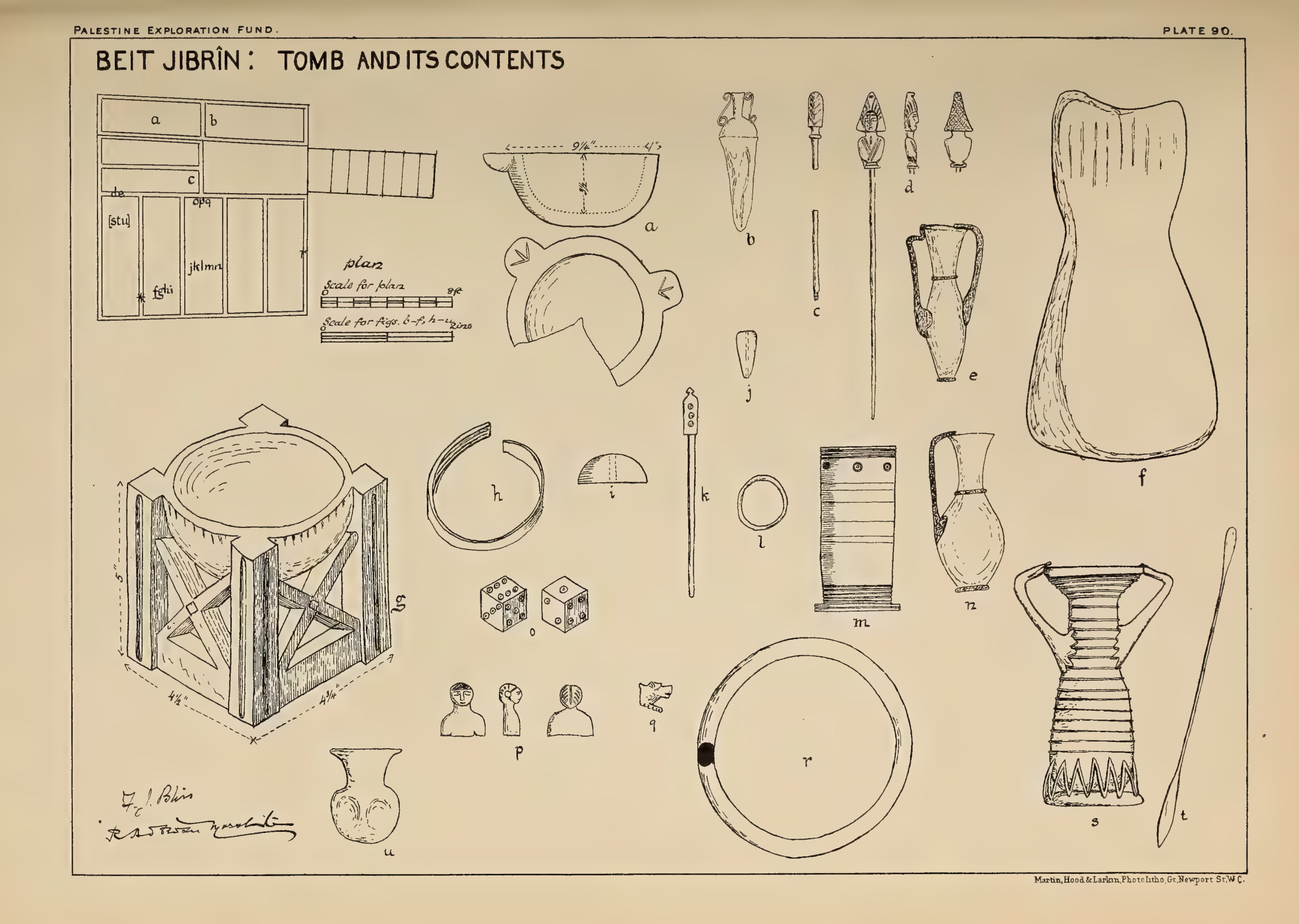
1 2 3 4 5 6 7 8

PART OF A, ENLARGED

Martin, Hood & Larkin, Photolitho Gt Newport St, W.C.



BEIT JIBRÎN: TOMB AND ITS CONTENTS



Martin, Hood & Larkin, Photolitho, Gt. Newport St. W.C.



BEIT JIBRIN

TOMB WITH MURAL PAINTING

1. Plan

2. Section

3. Wreath round internal arches: details

4. Bird-figures

5. Wreath, inscription &c. at k (on Plan).

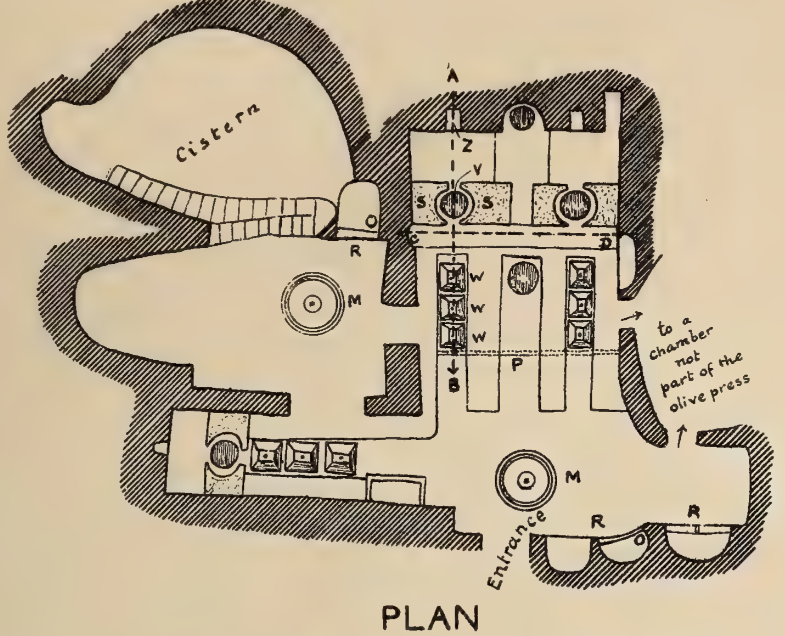
F. J. Bliss
R. A. Stewart Macalister

Martin, Hood & Larkin, Photolitho, Gt. Newport St. W.C.

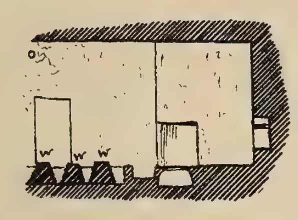




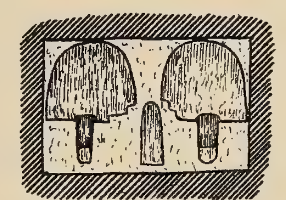
TELL SANDAHANNAH ROCK-CUTTINGS



PLAN

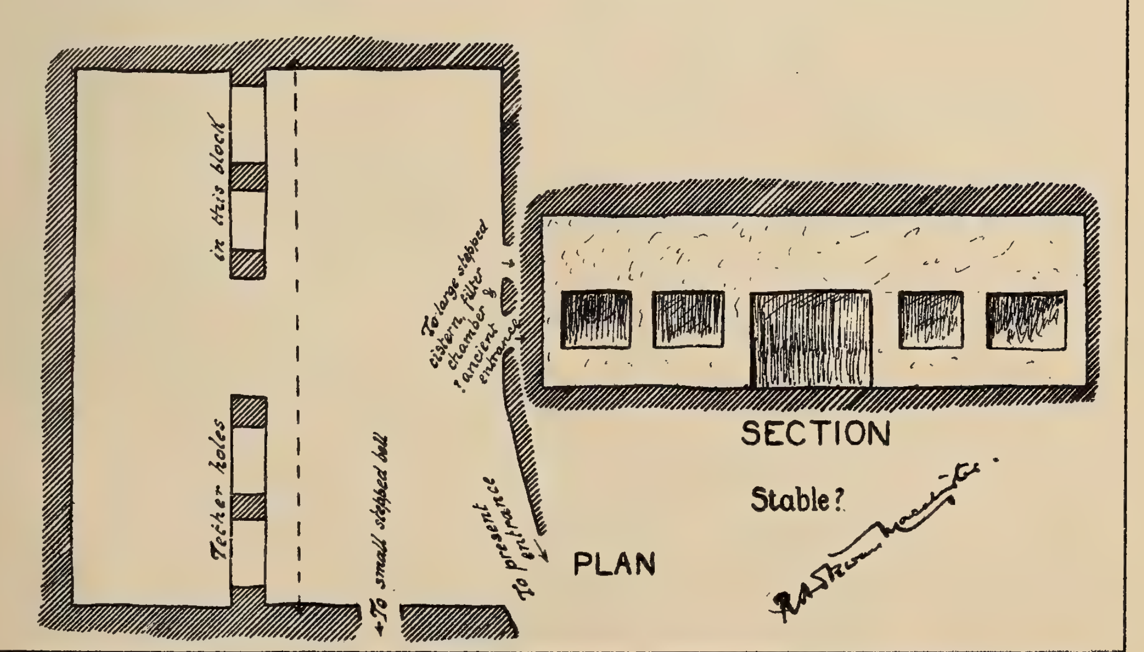


SECTION AB



SECTION CD

Olive-press



SECTION

Stable?

PLAN

R. A. Stewart Macalister.

Martin, Hood & Larkin, Photolitho, Gt. Newport St, W.C



TELL ZAKARÎYA ROCK CUTTINGS Nº II, WITH ITS CONTENTS

Martin, Hood & Larkin Photo Litho Gt. New



TELL ZAKARÎYA ROCK-CUTTINGS

THE GREAT SOUTERRAIN

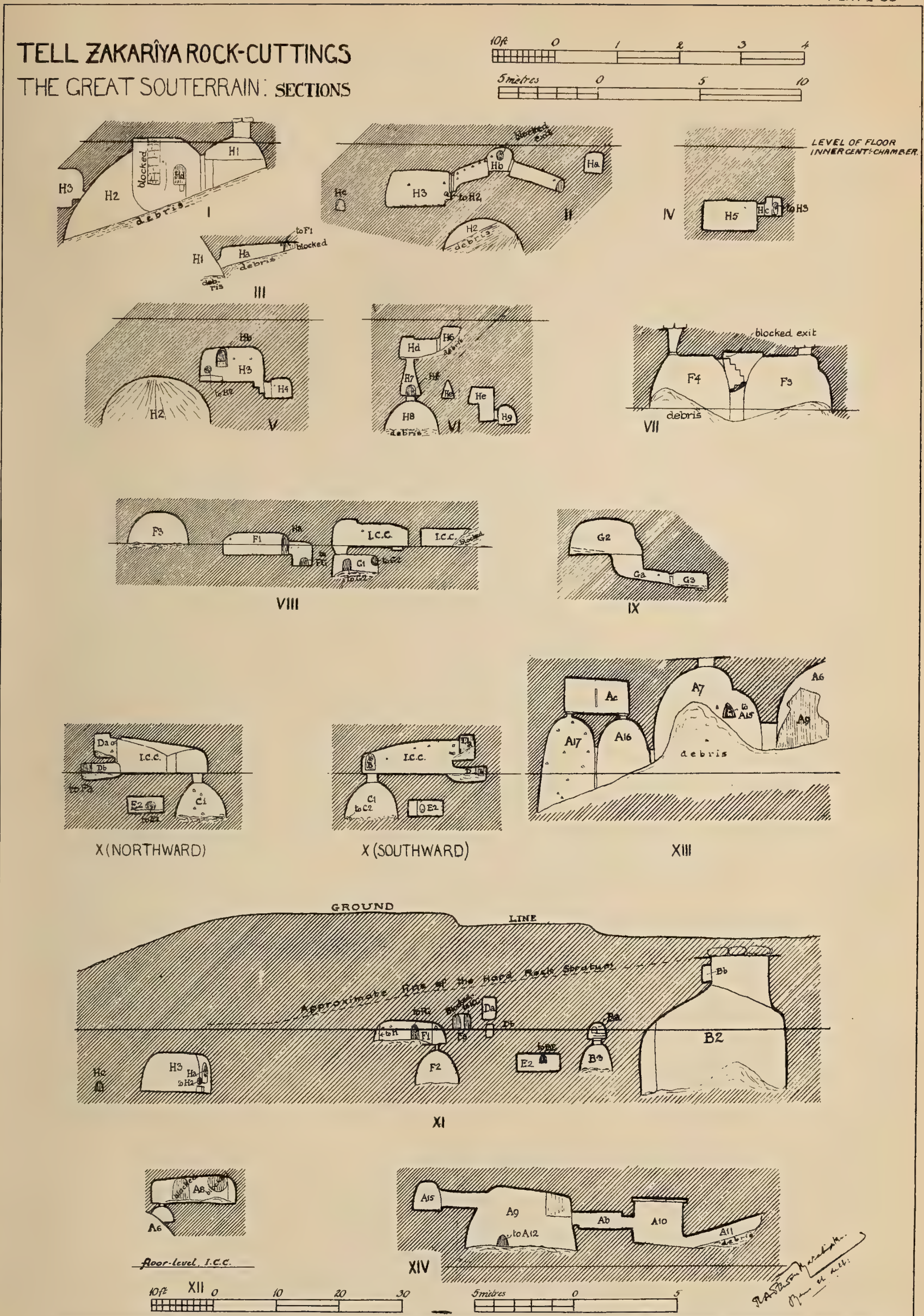
PLAN

SCALE, IN FEET, OF THE FLOOR-LEVELS OF THE PRINCIPAL CHAMBERS

R. A. Stewart Macalister meas. et delt.

Martin, Hood & Larkin, Photo Litho Gt Newport St, W.C.



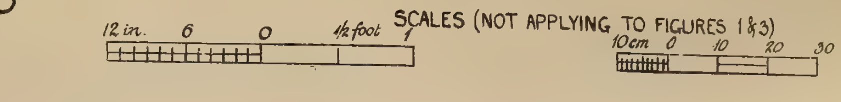


Martin, Hood & Larkin, Photolitho Gt Newport St.W.C.

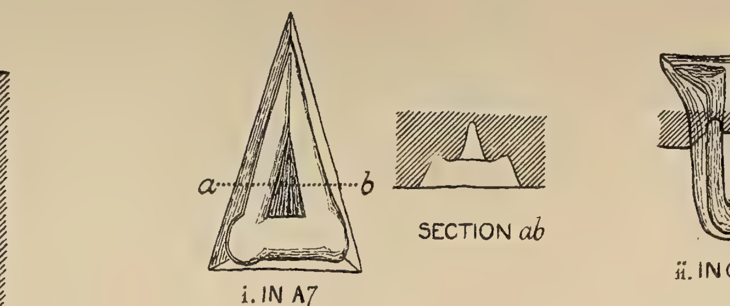


TELL ZAKARIYA ROCK-CUTTINGS

THE GREAT SOUTERRAIN : DETAILS

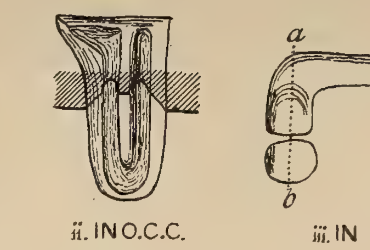


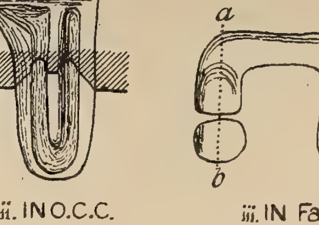
1. SECTION OF A3



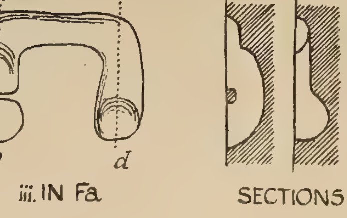
i. IN A7

SECTION *ab*



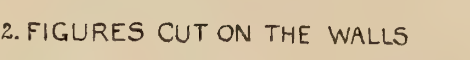


ii. IN O.C.C.



iii. IN Fa

SECTIONS *ab* | *cd*



2. FIGURES CUT ON THE WALLS

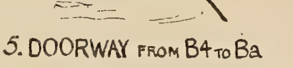
3. SKETCH OF PART OF THE PLASTER MARKING IN O.C.C.

6. MARKS ON THE STAIRWAY IN F4.
LEFT RIGHT

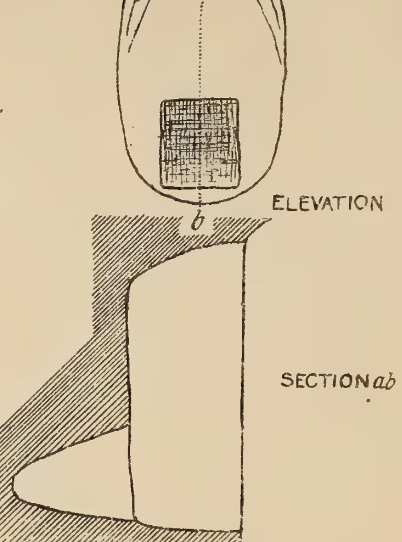
4. ENTRANCE TO B3

7. PICKMARKS IN H2





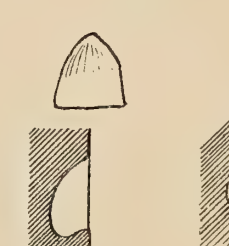
5. DOORWAY FROM B4 TO Ba



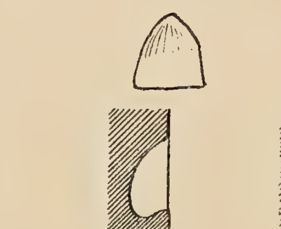
ELEVATION

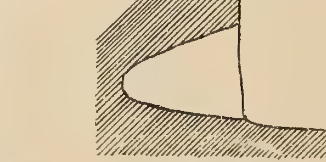
SECTION *ab*

9. NICHE IN E2.









8. NORMAL WALL NICHE

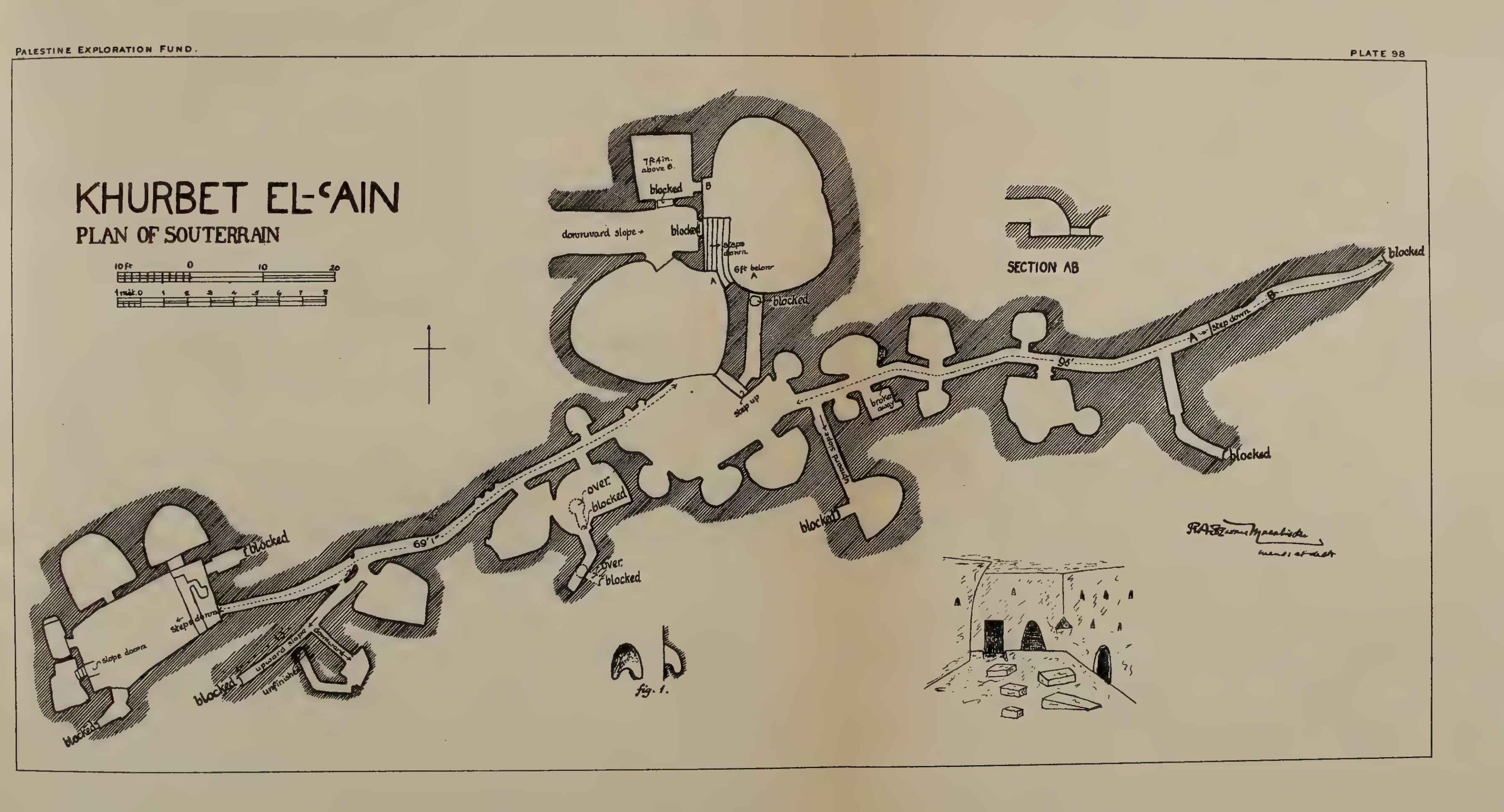
R. A. Stewart Macalister mens. et delt.



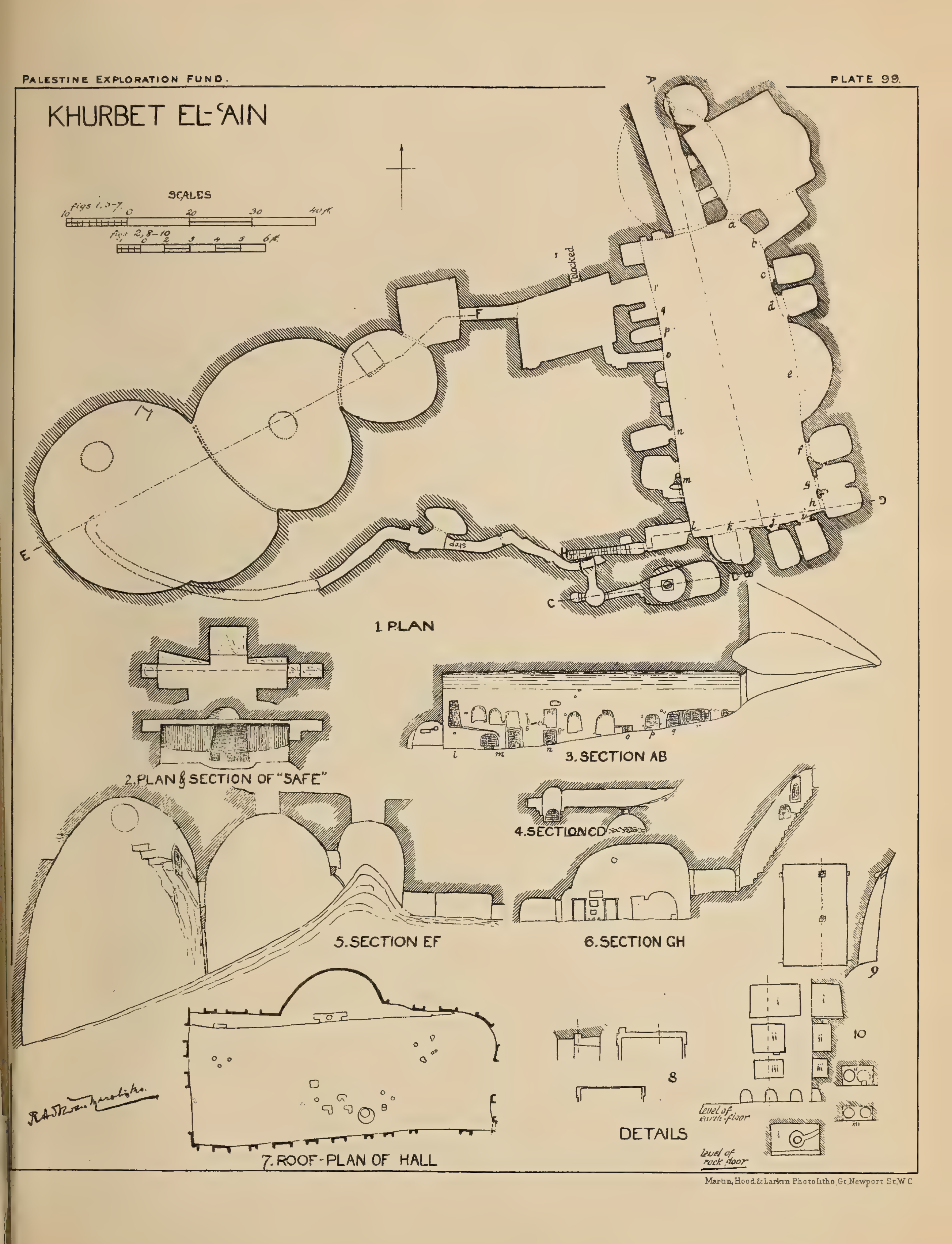


Mervin, Hood & Larkin, Photo Litho, Gt Newport St, W.C.



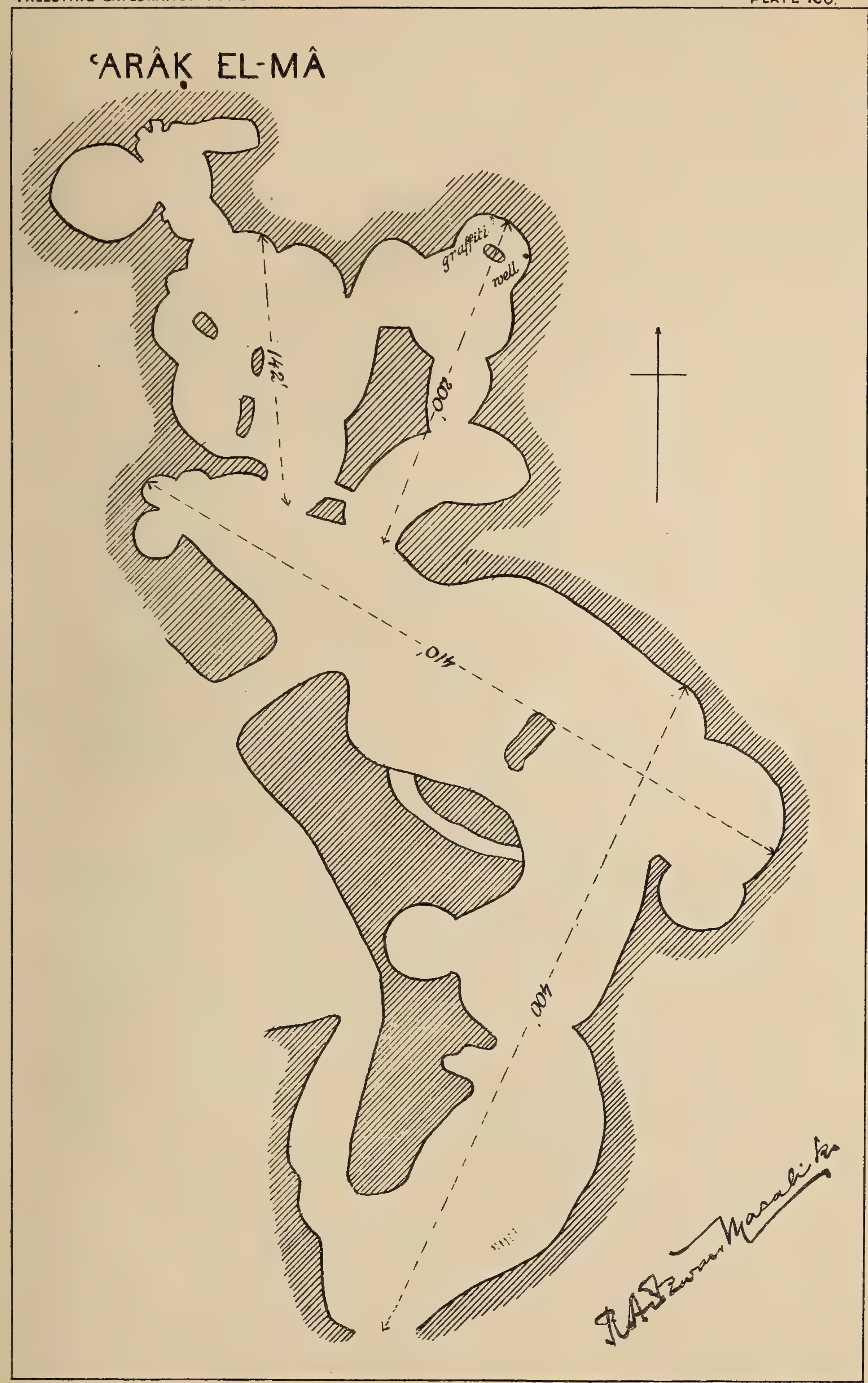

KHURBET EL-ʿAIN
PLAN OF SOUTERRAIN
SECTION AB
blocked
downward slope
steps down
6ft below A
step up
broken away
step down
98'
69'1"
over
upward slope
unfinished
slope down
fig. 1.





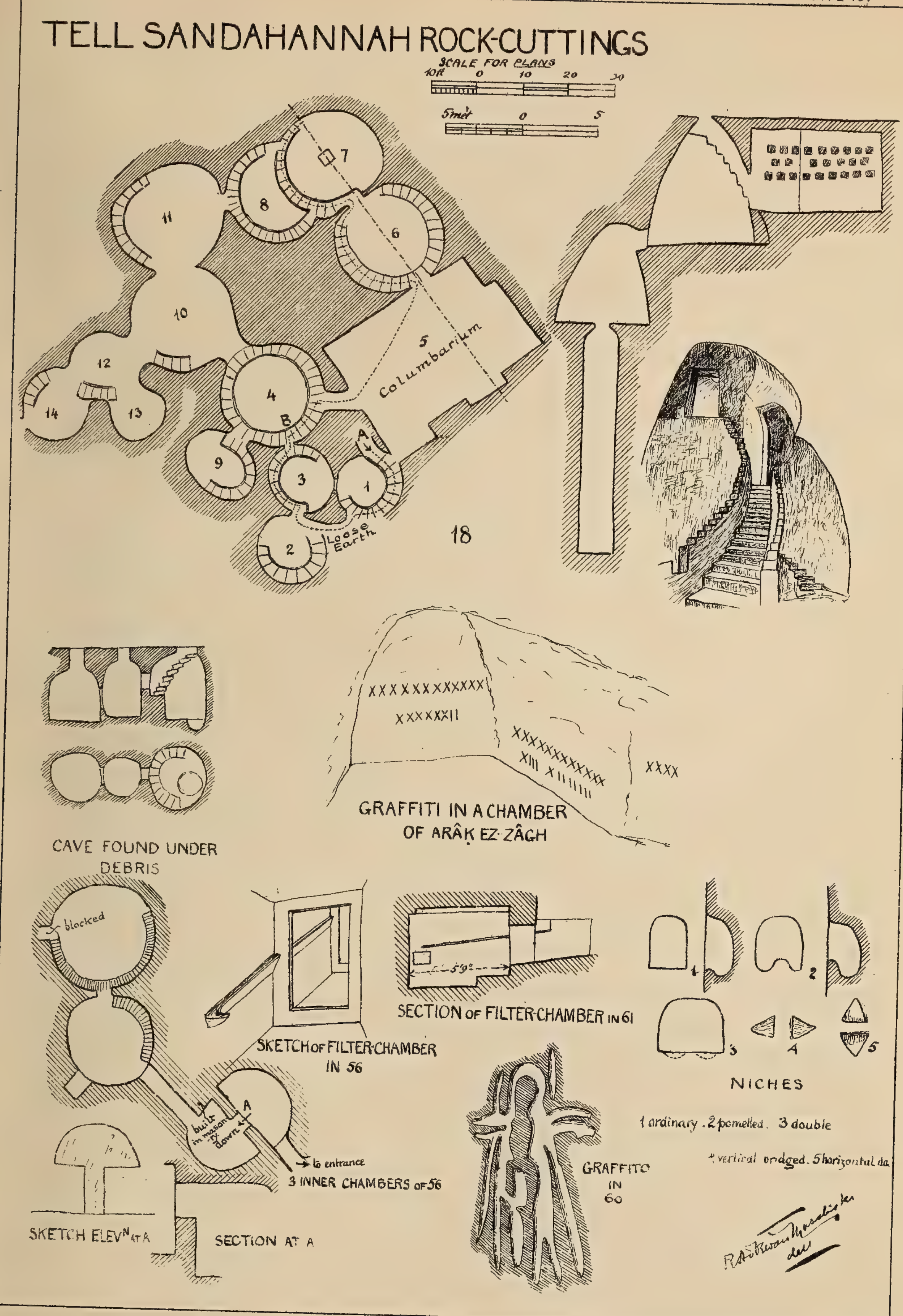
Martin, Hood & Larkin Photolitho, Gt. Newport St, W.C.



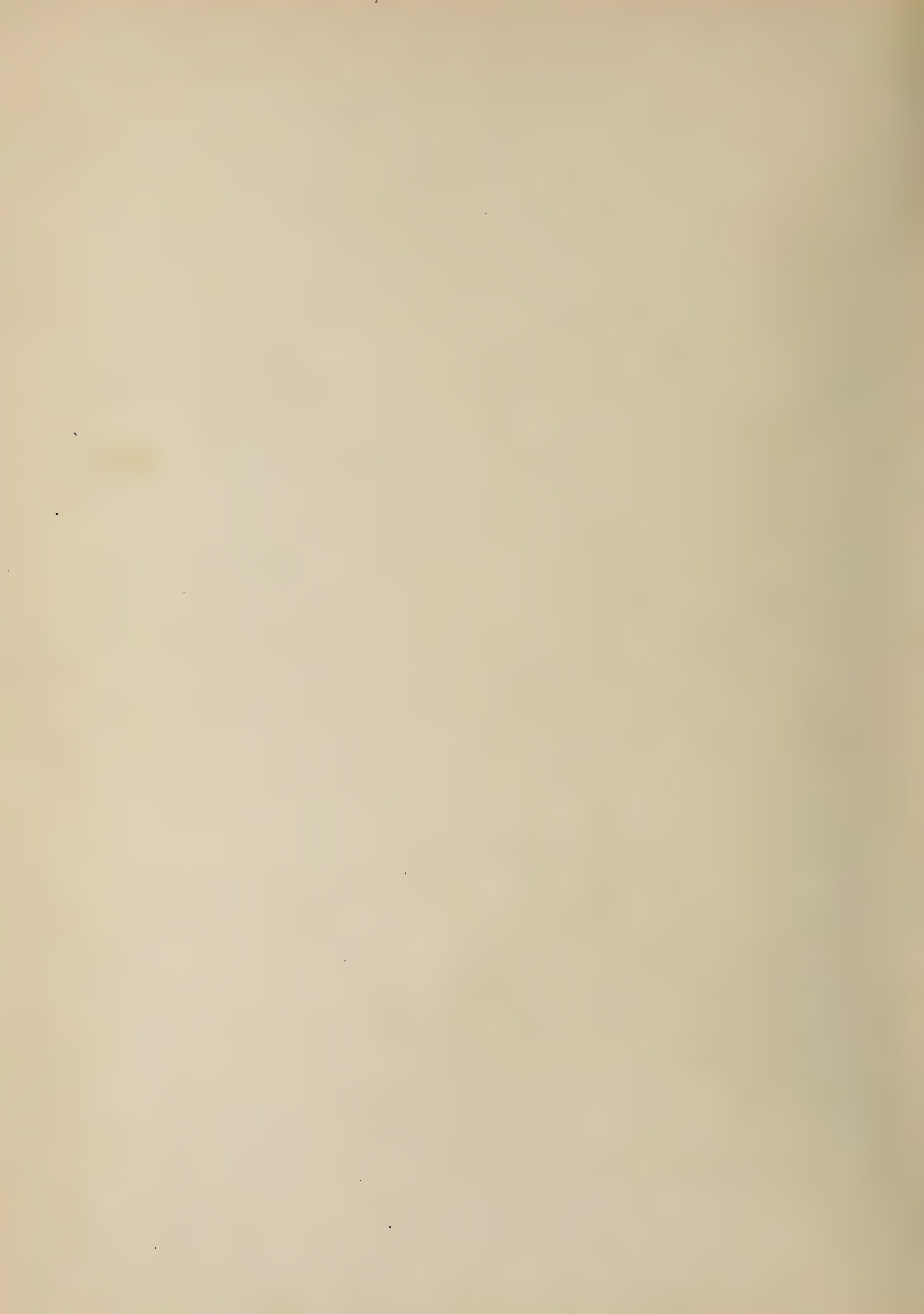


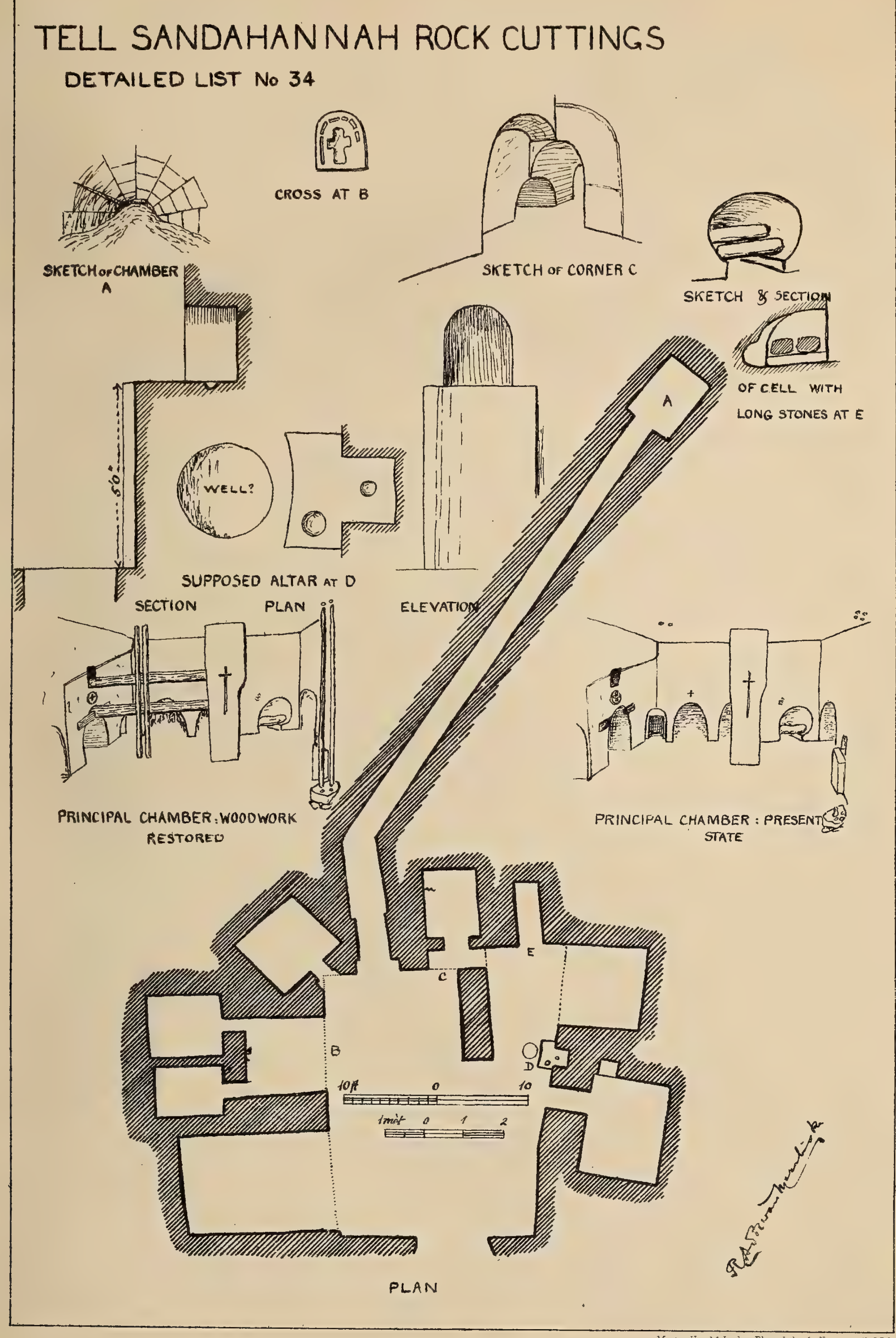
Martin, Hood & Larkin, Photolitho, Gt. Newport St. W.C.





Martin Hood & Larkin, Photolitho, Gt. Newport St. W.C.





Martin, Hood & Larkin, Photolitho Co, Newport St W.C.

